The Builder.

No. CXCVII.

SATURDAY, NOVEMBER 14, 1846.

SOME one says, "Time is money:" we say, it is something better still,—it is money and much more. Time is priceless, not to be bought,—and involves culture, progress, wisdom, good. When schoolboys, we wrote, "Life is short and art is long," and we feel the truth of the apothegm every day of our life more strongly. The Londoners, however, can scarcely agree with us, or they would surely not suffer so much time to be wasted in the streets, as is now the case, for want of thoroughfares proportioned to the enormous and ever-increasing traffic of this wonderful metropolis. If we deduct the time spent in eating and drinking, sleeping, buttoning and unbuttoning (wrote Byron, in other words), how little is left for the real business of life!" Those who make a periodical journey through the city, must add it to the list of deductions, and make an allowance for the wear of the spirits caused by the forced detention.

A few days ago, while locked up in Gracechurch-street, where we stood motionless for twenty-five minutes, "by Shrewsbury clock," we made an approximate calculation of the time lost annually, for want of proper road room. The result was startling; as our readers may see, if they call to mind that less than 9,000 hours make a year, and that if only double that number of persons lose half an hour in the day, more than 300 years of active life are wasted within the twelvemonth.

This is *very* far from the amount of time really wasted (satisfy yourself of it, curious reader, by calculating the number of persons in every yard of road, when you are next compelled to creep from the Poultry to St. Paul's), and although it may be laughed at as fanciful, unquestionably deserves to be remembered.

Attention is now evidently awakened to the subject, and it is to be hoped that the efforts about to be made to lessen the evil complained of, will be in the right direction.

The commencement proposed by the City Improvement Committee appears to us far from satisfactory; it being clear, that after the 25,000*l.* are spent, much more must be done before the slightest improvement will be found in the existing thoroughfares. If they had even commenced at the other end of their proposed improvement, and formed the direct line from the south side of St. Paul's to Cannon-street, some relief would have been given to Cheapside; but as it is, years will elapse, and none will be felt. A member of the Improvement Committee, who wrote to *The Times* on the subject, says the proposal is only part of a much more extensive plan, on which the public are not informed; but the few particulars into which he goes are far from sufficient to assure us of the wisdom of the plan, even when all carried out. What we want are direct and *straight* lines of communication in the right direction,—not angles and windings for the sake of existing interests. We know it costs large sums in the first instance, to make entirely new thoroughfares, but the perfect thing is the cheapest thing in the end, and unless the alterations are to be made in the *best* manner (allowing *nothing* to interfere with this requirement), it will be better not to attempt them at all, as what is done will stand in the way of more far-seeing improvers who may come hereafter.*

We long ago urged the importance of having a general scheme, for the improvement of the metropolis, prepared by the most competent persons in no way interested, and with reference solely to the advantage of the public, so that all partial improvements, afterwards proposed by individual interests, might be tested by it, and modified accordingly. We shall return to this very important point on another occasion.

There is little doubt that if such a plan was prepared, a road from the end of Cheapside across Farringdon-street to the end of Long-acre, so as to unite with the improvements at the end of Piccadilly, would appear upon it. The advantages of such a line are too obvious to need comment.

Another much called for improvement, the widening of the Poultry, could be accomplished with less difficulty, and would afford an immediate and most important relief.

The removal of that abominable nuisance, Holborn-hill, is loudly called for. If we may judge from the number of letters we have received, relating to its remedy, a very large section of the public feel interested in the matter. One correspondent suggests the simple course of lowering the brow of the hill, as constantly seen in country roads, so as to render the ascent more gradual—the foot pavements to remain as they are, and retaining walls built to keep them up, and form the end of vaults under them, with a parapet on the top for the protection of foot-passengers. "The water and gas-pipes would require to be lowered," continues the writer, "but there would be no interference with property, and the expense would be less than that of any other scheme for the same end, which has been laid before the public."

There are some obvious objections to the course proposed, the most weighty of which is, that it could but partially lessen the evil, not remove it.

A writer in *The Times*, who sees the absolute necessity of doing something here, if it be but to lessen the number of broken-kneed horses, suggests that the road should be made like the tooth of an elephant, full of ridges, which would keep themselves rough. "And how is this to be accomplished?" he asks; "why, in the simplest of all manners. The tooth of almost every vegetable feeder is composed of alternate plates of hard and soft material, placed vertically. During the attrition necessary to grind the food, the one wears much more readily than the other, and, as a consequence, it keeps up a constantly roughened surface. Apply this principle to the hill in question: suppose it were paved with alternate rows of soft and hard stone, say granite and Portland, or granite and wood,—the one would wear much faster than the other, and would necessarily keep up a constantly rough surface, from the ridges or projections of the unworn granite. In applying this principle, however, it would be proper to have the softer material laid in thin rows, as from one to two inches, or the roughening would be greater than desirable."

This, again, is but a palliative, and that, too, of only one of the evils. More is demanded; and that is, a road as nearly level as can be obtained. One correspondent, whose letter we print below, urges the advantages of a viaduct from Holborn-hill to Snow-hill, crossing the end of Farringdon-street, as proposed by Mr. Stead, and which certainly affords the main requirement. The financial details of the scheme we have not seen.*

Circumstances are favourable at this moment to the improvement of Holborn, and, it is to be hoped, will be taken advantage of. The Official Referees have just now confirmed the condemnation of some of the houses in Middle-row, unless certain specified works, amounting almost to a rebuilding, be done; and this, therefore, is the right time to treat for their purchase, with the view of getting rid of the whole block of houses which now stand so much in the way. To suffer them to be rebuilt, and the nuisance perpetuated, would be really disgraceful.

In Field-lane, too, as our readers know, many of the houses are to come down; and at the last meeting of the Court of Common Council, a motion,—"That the greater portion of the houses in Field-lane being condemned by the district surveyor under the Building Act, the same be included in the proposed bill for the improvement at Holborn-bridge,"—was referred to a committee for consideration.

Widen, however, and improve the roads through London as we may, we shall still be liable to stoppages, and the loss of time consequent on devious wanderings through back ways, until improvements are effected in our mode of paving, and we have a better arrangement of sewers, water-mains, and gas-pipes. The experience of the last twelve months is sufficient to appeal to; and the annoyance and loss from which we have just got free in Piccadilly and Fleet-street, through the repaving of the roads, may be partially forced upon us again in a week, should a larger water-main be required, or the escape of gas, now going on to an immense extent, enforce a general examination of the pipes; as it ought, unquestionably, to induce a better system of laying them, in all places where new ones are required.

A sub-way or tunnel, in connection with the sewers, wherein the pipes could be laid, and afterwards examined and repaired, without breaking up the road, would seem to be too costly to be expedient. We have little doubt, however, that in the long run, money would be saved to the community by such a course. How long it will be before we have railway-streets it can scarcely be said; it may not be long before we have, at all events, such as are required to connect all the existing lines into

* Since this was written a meeting has been held in the ward of Farringdon-without, Sir Jas. Duke in the chair, to oppose the proposed measure; and resolutions were passed to that effect.

* Athenæum Club, Oct. 24, 1846.

SIR,—As a constant reader and studier of your valuable publication,—valuable to the public and useful to the architect,—I have read the ideas of "A Citizen" on the thoroughfares of the city with pleasure. He does not, however, seem aware, that by a promising project registered by Mr. Stead, civil engineer, for a viaduct to demolish the nuisance of Holborn-hill, the proposed company will remove the projections complained of by your correspondent gratuitously, and without expense to the city. Having examined Mr. Stead's plans, I can say, that the hitherto difficult problem of removing the obstruction at Snow-hill for an easy communication betwixt the eastern and western parts of the metropolis has here been simply solved. Having a knowledge of most of the capitals of Europe, I can affirm with confidence, that London would then boast an uninterrupted line of traffic nearly across its greatest extent, from east to west, unrivalled in the modern as in the ancient world. St. Petersburg may boast its Prospects, but they run principally through woods and wastes. The Frederic Strasse at Berlin is long, but its sides have in a great measure only houses, or rather cottages, on each side. The *Cilie* de Toledo, at Naples, is open on one side to the sea,—in fact, only a magnificent shore-side promenade; and, not to weary your readers with instances, the Prado at Madrid is but a large ride, like Hyde-park. How then could they compare with the line beginning at Kensington Palace along Hyde-park, through old Oxford-street and its *superb* new promenade, on the site of ancient St. Giles's through Holborn, and, at the *fatal* hill, carried on a level through to the opposite side in Newgate-street, at various inlets on the Christ Church side, shew symptoms of enlargements, whence the magnificence of Cheapside, the Mansion House, Bank, and Exchange are successively passed in a straight line to the India House. I must confess, that as you say, the reduction of Middle-row, and perhaps the removal or widening the *strait* at the Poultry, are desiderata in this extent; but most of all, the not only unsightly but dangerous acclivity at Fleet Market, where a gradient is offered, to the largest traffic in the world, that is a disgrace to the country, and would not have been permitted in any other capital.

A COSMOPOLITE.

continuous roads, which are imperatively called for; and in the meantime active steps must be taken to improve the existing thoroughfares, and fit them for the increased traffic, and the sudden outpouring of large multitudes of persons, produced by the present railway system.

It should be remembered too, that the widening of thoroughfares involves the public health, as well as the saving of time and improvement in appearance. By letting in light and air we are assisting to lengthen life, and to increase the sum of human happiness.

"WE CAN BE USEFUL NO LONGER THAN WE ARE WELL."

ARCHITECTURE:

THE ART, THE SCIENCE, AND THE PROFESSION.*

IN seeking to elevate the ART of architecture, Mr. Kerr has entered upon a labour worthy all the enthusiasm he has displayed. To impart new life to the only branch of human ingenuity which remains an exception to this century in its intellectual advancement, was an undertaking demanding great judgment and accurate investigation of principles. It would be no crime to fail in such an endeavour. To most writers, faint glimpses of the truth at intervals are all that appear; few seek to remove the obscurity; but the merit of Mr. Kerr's attempt rests on better grounds than priority of effort. He has had an object which demands the attention of all who profess the art, and the Newleafe Discourses will, in a great degree, aid in producing it. Architecture, as an art, *is* little studied, and much misunderstood.

But, in the execution of his work, Mr. Kerr has left apparent the difficulty of the subject. The Discourses are marked by some inconsistencies, and by much that it is our duty to protest vigorously against. Admitting the want of consideration for *art*, we would say, that what Mr. Kerr defines as architecture, is but one of its departments, or means of exercise; and he is at pains to exclude so much from his acceptation, that some may be obliged to inquire what remains. To define the term architecture,—to explain the full scope of its comprehension, would be a task that we might lay before the oldest professor, with little prospect of accomplishment. "We do not," says the writer in the *Quarterly Review*, "pay due honour to architecture, if we consider her as the sister, and therefore the equal, of the mere imitative arts: she is their queen. We want a term to designate the intellectual rank of architecture, so closely connected with the imagination, that we can scarcely term it a science,—so entirely practical and subservient to our needs, that we can scarcely reckon it as one of the æsthetic arts. And yet the arts must all be coerced into the architect's service. Architecture, as a branch of human wisdom, constitutes a genus of its own. Sculpture and painting are entirely founded upon the imitation of nature; whereas the basis of architecture is utility—utility in every sense, from the lowest to the highest, whilst it is wholly conventional in outward arrangements and forms. Architecture may borrow many a principle from nature; but she consults nature for *lessons*, and not for *models*."

Mr. Cockerell is next quoted as to the use made of lessons from nature, in the spire of St. Bride's, and the domes of Santa Maria at Florence, and St. Peter's at Rome. Further, "In ornament, architecture must equally appeal to nature, to the graceful leaf, the binding tendril, the spreading herb and floweret bright; but the architect employs them all as elements, and in combination. Even as the living body assimilates to itself the food which gives it growth, and the air imparting health and vigour, and above all bears in its countenance the expression of the vivifying mind, so does architecture render all the material objects of which the building is composed, and all the knowledge requisite for their combination, and all their elegance and symmetry, subservient to her own dominion and empire. Hence the magnificent conception of Vitruvius—every branch of human knowledge is needed to constitute the perfect architect: literature, design, geometry, optics, arithmetic, history, philosophy, music, medicine, jurisprudence, astronomy. There may be somewhat of Platonic mysticism in these Vitruvian opinions. Still we always find them cleaving more or less to the great masters of the art. They are founded upon immutable truths."

Mr. Kerr rejects, one by one, the science and practice of construction, the preparing of plans and specifications, the superintendence of works, the grammar and practice of art in all ages, and much that goes to make up the sum of "architecture," and restricts the term to "the art of the beautiful in buildings." His question, therefore, he answers only in part;—but we will not now quarrel about words, and receive the definition for the limits of this article.—But in what conduces to the *art* we deem him to be equally mistaken. "Constructionism," "archæology and antiquity-rule," and "ecclesiologism" contain nothing which is necessarily opposed to art; they are materials out of which it takes its true and proper aids, and its highest excellence. They may become despots, but they are not less the matter of good government: even Scripture can be perverted, and the powers of intellect employed for the debasement of the human race. When Wilkins deciphered inscriptions, and Donaldson elucidated the plan of the Greek theatre; when the Camden Society systematized and improved our acquaintance with "examples," were they contributing to the knowledge of *architecture?* We say—yes! Mr. Kerr says—no!

It would not be unfair to ask the author of the "Discourses" to enter somewhat deeper into his explanation of the remedy for the present state of art. Mr. Heavyith'heel, indeed, does not badly state the question when he says, that styles have been always matters of slow growth. "Did Phidias copy the Parthenon from authorities?" *We* say, yes. The Grecian style, perhaps more than any other, progressed by minute stages. The old Hecatompedon was Grecian-Doric, and not in a great degree different from the temple which rose on its site. "Go to Nature," and *entirely* reject "authority," and architecture is at once reduced to a state in which it has never existed, but at the origin of building. "It is indisputably evident," says Reynolds, "that a great part of every man's life must be employed in collecting materials for the exercise of genius. Invention, strictly speaking, is little more than a new combination of those images which have been previously gathered and deposited in the memory; nothing can come of nothing; he who has laid up no materials can produce no combinations." The history of art in all ages is against the entire disallowance of "precedent." The *fact* of a style having been used may be "no authority at all;" but it is right that we should not forget who were the artists, and who the people, from whom the architecture of Greece came to life. And however we may condemn an adherence to precedent which allows no exercise of thought, we cannot think that this consideration even is not of some value. We cannot admit that "copyism," as it is called, or the use of precedent, was commenced at "the revival;" the adaptation of Grecian art by the Romans resembled in all important points that of Roman art by the Italians.

Indeed, the word "revival" is partly a misnomer; for it would not be difficult to shew that invention characterized the early Italian style in a high degree; whilst the earliest architecture of the Roman empire was in fact Grecian. But, under some difference of title, Mr. Kerr shews that the reverse of his first assertion came to pass. And he is not far from giving the whole object of architectural study, in saying, "that which the imagination produces, it produces by the combination of simples previously known." "Antiquity-rule," or precedent, archæology, and construction should, we can sadly admit, be greater aids to art than they at present are.

It matters not that there is little of real "art" in *ordinary* house building; that is not less the kind of material out of which art springs, just as the block of marble, roughly shaped for the statue, has no other connection with the *art* of the sculptor than as the means by which that art may, or may not, find language. In the strictness of the Newleafe definition, the compounding of colours, the setting of the palette, the manipulation of painting, and the repetition of the sketch and of matters of detail in the picture, would in no degree confer the title of artist on the operator; this would be given only, of the actual indispensible labour, to that small part which is invention or design. Yet these details are not less closely united to the *art* of painting than are those which are included in the profession of the architect. They make up the "calling in life," but they are equally inseparable from the *art*. Mere construction would not be "art," any more than the delineation of forms in the picture from the model; yet both are amongst those aids, more or less mechanical, without which there can be no "art."

Mr. Kerr admits, indeed, that "the art" of architecture, and the practice of construction may be followed by the same individual, but he wishes to shew that there is a line of demarcation, one side of which gives no right to the title of artist. He says, "what I complain of is this, that now-a-days the doctrine is vehemently urged that *Construction is Architecture*."—"I make no complaint against him who is Architect and Constructor together. But I say that Architecture and Construction are two things, not one: and that there is no need for putting the one in antagonism against the other.

MR. HEAV. But surely the principles of Architecture include Construction?

MR. NEWL. The principles of Architecture are in part *based upon* the principles of Construction (properly so called); but Architecture has nothing whatever to do with what the Brick-people call construction;—the proportioning of lime and hair and sand; the dimensions and fall of drains; cesspools; bricks; the pargetting of chimney-flues; the mysteries of water-closets, and sinks, and dressers, and pipe casings; hay racks and mangers; straps, nuts, bolts, washers; air-traps, stink-traps; putty and whitelead; pumice-stone and knotting; the arcana of five-coat-work and four-coat-work and three-coat-work, and glazing, and flatting, and distemper, and whitewash; and dry-rot and rats; and bell-hanging; and paper-hanging; and the prices of everything which it can enter into the heart of builder to estimate or overcharge; with all this the Fine Art Architecture has *nothing whatever* to do,—it is *Building*, or at most *Surveying*. Architecture is Design of The Beautiful in Buildings. In considerable part (as I shall afterwards describe) this is influenced by the appearance resulting or derived from constructive propriety (properly so called); wherefore, an Architect must understand, so far as Architectural design requires, the principles of Construction; but the Construction itself, and especially that which is called Construction by the Brick-people—the Science of house-building, is not Architecture, any more than it is Music or Political Economy.

MR. HEAV. Then you disapprove of an Architect being able to superintend the execution of his own designs?

MR. NEWL. Now you use cant phrases against me;—the *execution* of his *designs*. Architecture has its province merely in *appearance;* the *architectural* design extends no farther: the constructive design and the design of convenience in arrangement of plan and so forth are not *architectural* matters, but matters of house-building. Now I disapprove, not of the Architect of the house being at the same time the contriver or designer of the arrangement and construction, but merely of his supposing that the construction and arrangement are *Architecture*—the Fine Art Architecture.

MR. HEAV. You would have one person to contrive the plan; and another to design the front?

MR. NEWL. The *front?* The entire *appearance*, external and internal, is the matter of Architecture. But I have not said that I would have the Architect and the contriver or planner of the house to be different persons. I have merely said that in the one and the other he is in two capacities, not one; in the former an Artist, in the latter not so: and that, consequently, he who employs himself in the latter alone is not an Architect, because Architecture is a Fine Art."

"The Fine Art Architecture, said I, and the 'business' of an 'Architect' are very different things. So they are. The 'business' of an 'Architect' happens to be this;

* "The Newleafe Discourses on the Fine Art Architecture," by Robert Kerr, architect. Second Notice.

he designs the arrangement of houses, and sheds, and stables, and breweries, and prisons, and all kinds of buildings, and their construction; he estimates, superintends, surveys; and, *perhaps* (if it should be so) he adds a little of *real* Architecture to all this. You count a man who could not write a Specification of works, or who could not detect frauds in building, not an Architect?

Mr. Heav. Certainly.

Mr. Newl. Then I do not. The Architect who writes a Specification does so in a capacity which, I hope I have shewn you, is not that of an Architect."

"And truly I think there is room for some improved division of labour here; whereby the real Architect might be relieved from the inspection of sewers and cesspools and wells, and the shoring up of old houses, and the rating of dilapidations, and the ventilation of foul cellars, and the fitting up of stables, and the curing of smoky chimneys, and the exclusion of rats, and all such like 'Architecture;' and entrusted with the design of much of the decoration which is at present confided to the painter, upholsterer, cabinet-maker. The *Art* of the house would thus be more thoroughly performed; and (however '*practical*' some 'Architects' may pretend to be) the other matters would be also more 'practically' effected by persons of different general calling."

Now it is not only practically and professionally that there is no such line of distinction, but it is our object to shew that an attempt to mark it would be prejudicial to that department which the suthor has sought to amend. Mr. Kerr has availed himself of the ordinary tactics of argument, and he might have extended his catalogue of the drudgery of practice to a much greater length. But, if the art of the Beautiful in building is to be a profession, and not merely a subject for discourses, as much drudgery will be found to be inseparable from it as from every other pursuit in life. In all, the art, the scientific invention, or the exercise of imagination, as the case may be, will bear a proportion small indeed compared with the actual work of hands, or with that order of intellectual work, which, from its nature, or its constant recurrence, is almost mechanical. The barrister might, we think, regret that the philosophy of law, and the inquiry into principles, could find little place in his attention. Amongst the routine of practice, the surgeon meets with few "interesting cases," which can either improve his own knowledge or admit of original treatment.

"O'er all, alas! the shade of earth will cling,"

and "art" must be a profession or "calling in life," and our inquiry must be, how it can be best advanced, through that which must remain its medium. We may regret, that many who usurp the title of artists have no claim from merit to rank with those of "our art," but the *real* artist, whether he have "the calling," or seek merely the improvement of art, must work with the sweat of the brow. It is the accompaniment of humanity, from which no pursuit and no "calling" is absolved, and many which we might deem free, are, could we look within, more mechanical and practical than the art of architecture. To what then would Mr. Kerr's arguments tend practically? He would raise up a new class of professors, who might be restricted to one department, but he fails to prove that the *art* of architecture even would be served thereby. Nay, we do not understand how the art could at all reach existence. "Anglo-protestantism," as Mr. Kerr himself says, to take an instance, "Anglo-protestantism, the established religion of England, requires *churches*. (I state the matter *a la* plain common sense). Those churches have certain requirements for the purposes of the services therein to be performed. The building is for the services,—the requirements of the services are the purposes of the building." Consequently, they require a certain arrangement, that is the first thing to be considered, and it admits of no sacrifice. Who is to be applied to? Mr. Kerr, if consistent, would say a professor of construction, *not* a professor of the art; *we* say the architect. From the first imaginary individual, out of many different arrangements, equally eligible, it would be matter of chance whether one would be capable of artistic treatment; from the second the *art* of the building with the constructive design would move *pari passu*. Mr. Kerr would say, we only take the balance of his arguments *pro* and *con*,—that, in the arrangement of the plan, the art of architecture was not called in:—the designer had little title to the rank of artist if it was not. As we have said in a former notice, it is not correct to say that architecture, even the "art," "has its province merely in *appearance*;" and does not the impossibility of detecting any boundary between architecture and construction compel, without use of arguments, the association of art, science, and practice in one profession. But Mr. Kerr has felt, that he had in some degree incurred the *onus* of explaining what were those "laws of nature and reason, the true standards of truth and the beautiful," which he inculcates, as the only source of art. And here he so far counteracts the tenor of his former arguments, that we cannot do better than give what so entirely agrees with our own views, in his words.

"The proper method of training *to forming the mind-mechanism for the design of Architecture* is a subject for deep philosophical inquiry; and is, I think, worthy of it.

The *Requirements* in a building must be made fundamental in the arrangement of it, and therefore in the arrangement of the Architectural design. And this has concealed in it much that may not at first sight appear. It is a fault with us that we arrange our plans too much by *model*, and too little by *requirement as a fundamental*. And I am convinced that if the true arrangements for the ends in view were to be carefully examined into, there would arise a variety in general and particular ideas, of plan, mass, and detail, which would be not only valuable but surprising. This, then, is one subject for study and education.

Construction must be a fundamental principle."

"These fundamentals, Requirement and Construction, are such as I call the principles of Nature and Reason. But they must be much more deeply studied, than our "Architects" study them, and very differently studied, before their usefulness can be discerned; and much more scientifically applied, before the good effects of their application can be seen. And it is by such principles as these, the true Rules of Architecture, that we are to criticise design."

He then alludes to other principles—those of *fitness and propriety*, pictorial *effect*, and *proportion*—and the result to which we at length arrive is, that Mr. Kerr's object and opinions, and our own, *must be* identical.

But it is, notwithstanding, our duty to consider what impression Mr. Kerr's book will have upon the minds of those who may not be ready, or able, to canvas the opinions it contains; and whilst commending its object, and the manner in which that object is in a great degree carried out, to counteract accidental errors in a manner not less prominent. We deem that there is much in the "Discourses" which would tend not only to the injury of the profession, but through that medium to the injury of the art. It should be our object to take every means of laying before the world the substantial benefits which the profession can render to clear away the ignorance which exists as to the nature of the architect's profession and labours. These benefits would be in matters which Mr. Kerr will not admit within the scope of architecture; but, practically, there would be a still further, a constant loss of opportunities of displaying the graces of the art. Few architects would say that the Institute is "too professional," however they might think as to Mr. Kerr's other grounds of cavil. Let the Institute set forth a proper statement of the course of education required for the architect, inquire what are the impediments to the success of architects, procure the recognition of architecture as a profession, set forth publicly its duties, its advantages, and its rights, and it will in this way not only disarm the attacks, for which now there may be reason, not only provide for excellence in construction, but in art, not only for personal benefit, but for the public welfare.

We have before endeavoured to shew that the comprehensive nature of architecture was a matter not sufficiently considered. It is, indeed, *all* that Mr. Kerr has set forth as *not* constituting "Architecture;" it is far more than that. Professor Donaldson was perfectly right when he used a few words of censure for the lack of what is called "engineering knowledge" amongst architects. Architecture includes engineering; and he might too have shewn how the art suffers from the existence of a separate class, seldom professing any knowledge of art; indeed, often contemning its principles, which might otherwise impose a salutary check upon extravagant outlay, and upon that mistaken view of the object of professional aid, which seeks the tortuous course only because it involves greater skill, often in preference to that which might produce greater beauty at less expense. Indeed, it seems to us that the union of art and science is a happy union for the advantage of each; and without the present combination of science and practice with art, architecture would be little more than matter for the *nugæ* of pamphleteers, or the impossible compositions of an exhibition. The art of architecture does not exist on paper.—To ensure the advantage of the art the profession must be *maintained;* and this is often effected, and must always be, as in parallel cases, by matters having little of art in their composition. It is to *architects*—those who are actually engaged in practice—that we must look for sound criticism, not such as, for want of sufficient attention on their part, has become the staple of the newspapers, some of the set phrases of which Mr. Kerr has quoted. The artist and the constructive agent must therefore be the same individual; and Mr. Kerr shews that *he* is perfectly familiar with the practice of architecture. The forms which construction takes in every detail, make, or influence, the art; they are matters of work, are mechanical, but essential to both art and science, and must be under one direction. The architect *should* bestow more of his own labour on his designs; and if we add to this, the design of the internal decoration, of all that now falls to the hands of the upholsterer, and, indeed, of every thing requiring construction or design in the formation, fitting, and furnishing of buildings, it will be seen that our idea of the pursuit of architecture varies much from that which the "Newleafe Discourses" teach.

And if we are told that it is impossible for the human intellect to grasp all these various subjects, we answer, that no limit has yet been found to the capacities of genius. There is no extent of professional knowledge which good system in education would not grasp,—no amount of business or labour which industry and order would not get through. We like that saying of Reynolds, and would gild it in every school of art-education,—"Nothing is denied to well-directed labour—nothing is to be attained without it." The names of Michael Angelo, Da Vinci, and Raphael, in art, or of Shakspeare, in poetry, were not those of men whom we may not parallel,—names which the present age may not surpass.—But we must defer these important subjects, as sufficiently important to claim careful thought, for future notice, but will not conclude this article without again recommending Mr. Kerr's book to our readers.

IMPORTANT TO LONDON BUILDERS AND ARCHITECTS.

PROJECTION OF SHOP-FRONTS, &c.

In the case of a shop-front, put up in Roan-street, Greenwich, by Mr. Sugden, builder, the district-surveyor objected to "the cornice, &c., of shop front and window dressings to the house nearest Skelton-street, overhanging and encroaching upon the public way contrary to Schedule E," and ultimately took the question to the referees.

At the meeting "it was admitted on the part of John Sugden, that the house referred to is a building built since the 1st January, 1845."

The referees awarded, "that the walls of the building in question ought to have been set back, so that all projections intended to be made therefrom should only *overhang or occupy the ground of the owner of such building, without overhanging or encroaching upon the public way;* and inasmuch as the walls of the building in question stand up to the public way, it was contrary to the said first-mentioned Metropolitan Buildings Act to erect any shop front before the walls of such building, of which the front wall stands, or of which any other walls stand up to the public way, so as to encroach upon such public way, or to put

any cornice to a shop-front in or before the front wall, or any other of the walls of such building, so that such cornice, or any part thereof, should overhang the public way; and that it was also contrary to the said Act to put any dressings to the windows in the front wall of such building, of which the cornice, or any other part thereof, should overhang the public way. And we do hereby find, certify, determine, and award, that a shop-front has been put before such building, standing up to the public way, so as to encroach upon such public way; and that a cornice to such shop-front has been projected from the front wall of such building so standing up to the public way; and that such shop-front, so far as it encroaches upon the public way, and such cornice, so far as it overhangs the public way, are contrary to the said Act. And we do hereby further find, certify, determine, and award, that in forming window-dressings to the windows of the third, or one pair story, a cornice has been projected from the front wall of such building so standing up to the public way, and that such cornice, so far as it overhangs the public way, is contrary to the said Act; but inasmuch as it appears to us, the said official referees, that the rule in Schedule E, of the said Metropolitan Buildings Act, headed, "Wooden shop-fronts and shutters," has been *misapprehended by builders and by many district-surveyors*, to authorize, or at least to permit, the projection of shop-fronts and their cornices over and upon the public way, in the cases of buildings built or rebuilt, notwithstanding the rule in the same Schedule E, headed, "Projections from walls of buildings over public ways;" and inasmuch as we have reason to believe that the building in question was built up to the public way under such misapprehension, and that no intimation was given by the district-surveyor in the case, that the building ought to be set back to the extent of any intended projections therefrom, until the walls of the building had been built up, we make no direction as to the irregular projections in question."

The rule in question, if enforced, will produce a bad effect on street architecture, and is to be deplored. Some inquiry into the way in which it will work should be made.

MR. A. H. LAYARD'S ACCOUNT OF THE RUINS OF THE PALACE OF AL HATHER, MESOPOTAMIA.*

The following remarks will, I trust, be sufficient to give you some idea of this building, the chief claim of which to your attention is its uniqueness. There is no other perfect monument of the same period in existence that I am aware of. The fine ruin below Baghdad, usually called the arch at Ctesiphon, is, as you no doubt know, but a portion of the original building. The palace of Al Hather, however, as far as the ground plan is concerned, is entire. The edifice, too, itself is remarkably well preserved, and I have no doubt that a skilful architect would have little difficulty in restoring it, at least upon paper.

You will see a further account of the ruins, in the ninth and eleventh volumes of the Geographical Society's journals, and that will make up for any deficiencies in the notes I now send you.

But I must caution you against placing much confidence in the speculations, as to the Chaldean and astronomical origin of the city. The remotest date one could assign to the buildings, of which the ruins now remain, would be the time of the Arsacian dynasty (256 B.C.), or Parthian kings of Persia, but I am pretty well convinced that they owe their foundation to the Sassanian (A.D. 226).

Hatra, now called Al Hather, was probably founded, like Palmyra, as a station for caravans, crossing the desert by the great roads which connected Syria with Mesopotamia, Assyria, and Babylonia. The city must have risen to considerable importance at an early period; but its name is, I believe, first noticed in history on the occasion of the effective resistance which it offered to the army of Trajan. Ammianus graphically describes it as "in mediâ solitudine posita," and calls it an ancient city. At the time of Jovian's retreat (A.D. 363), it was deserted, and the ruins which now exist appear to me to belong to edifices constructed *after* that period. It is probable that after the cession of the provinces beyond the Tigris, after the treaty of Dara, by the Romans, the Persians saw the importance of Hatra, and rebuilt and strongly fortified the city; for, to whatever people it may have owed its foundation, I entertain little doubt as to the Sassanian origin of the palace, fortifications, and principal buildings now standing. So little is known of the history of the place, that much cannot be added to the above remarks. It is described by most Arab geographers, who preserve the tradition of a memorable siege, which it sustained under one of the Shapours (Sapores), and which attributes its fall to an event, which, however well suited to the genius of eastern romances, would scarcely bear recital here.

By an inscription repeated more than once on the walls of the palace, it appears that this building was restored by Azzuddin, ibn Mesud, ibn Maudud, ibn Tamanki, Atabek of Trak, in the year of the Hegira 586 (A.D. 1190). I am not acquainted with the period of its final desertion. The ruins are now the occasional encamping place of the Arab tribe of Shammar. Their position renders a visit to them at most times hazardous; they were first reached by Dr. Ross, the surgeon of the British Residency at Baghdad, but this gentleman was compelled to leave them after a very hasty survey. He revisited them in May, 1837, as published in the 9th volume of the "Royal Geographical Society's Journal," and Dr. Ross remarks, "That the ruins of Al Hather occupy a space of ground upwards of a mile in diameter, inclosed by a circular or nearly circular wall of *immense thickness* with square bastions or towers, at about sixty paces, built of large square cut stones. The upper portions of the curtains have, in most places, been thrown down, as have been also some of the bastions, but most of the latter may still be said to be in very fair preservation, each having towards the city vaulted chambers; outside the wall is a broad and deep ditch, now dry, and one hundred or one hundred and fifty paces beyond it is a thick rampart, now only a few feet high, going round the town; and at some distance beyond the fortifications, stand two high mounds with square towers upon them, one on the eastern side, and the other on the north.

In nearly the exact centre of the town stands the grand object of curiosity, *whether a temple or a palace*, observes Dr. Ross, *I shall not pretend to say*, inclosed by a strong, thick, square wall (partly demolished), with bastions similar to those of the city wall, fronting the four cardinal points, each face measuring three hundred long paces inside.

The square is, in its centre, intersected from north to south by a range of buildings *greatly damaged*, a confused mass of chambers, gateways, and one *built pillar*, reduced to about thirty feet. Between this range and the eastern wall appears to have been a clear space. The principal buildings occupy the western side, and consist of a huge pile fronting the east, and part of a wing fronting the north; the ground story only remains perfect, and consists of a range of vaulted halls of two sizes. The whole city is built of a brownish grey limestone, so closely fitted, that if cement has been used it cannot be seen, and almost every stone in the great pile has cut upon it one or more letters or marks, seemingly the builder's number, as they are seen in the midst of broken walls, where they could not have been exposed when the structure was perfect."

Mr. Layard continues,—"The ruins of Al Hather were subsequently visited (in 1840) by Mr. Ainsworth, Mr. Mitford, and myself. We were able to remain some hours amongst them, but deemed it prudent to return before we had been able to devote as much time to the examination of the remains as they deserve.

In the month of April last, the chief of the Shammar Arabs being encamped near Mosul, I seized the opportunity to make a second excursion; and having obtained an escort from him, and secured his protection, I was able to spend three days amongst the ruins without interruption. I was accompanied by Mr. Rassane, British Vice-Consul at Mosul, Mrs. Rassane, and a large party of native gentlemen. Al Hather has only been visited by the travellers mentioned above."

Sketches were exhibited of the principal edifice or palace. "The city contains no other building of any importance. The walls and bastions are in good preservation. They are nearly circular, and about three and a half miles in circumference. The other ruins are principally those of dwelling houses; these are of stone, usually of two stories, with small vaulted rooms, connected by narrow flights of steps.

The smaller chambers of the palace, on the ground-floor, are still nearly entire, and the large halls are so well preserved, that there is little difficulty in conjecturing their original forms.

No traces of the windows, which must have occupied the spaces between the large halls, and above the entrances to the small chambers, now exist, and I am at a loss to know how to restore them. They may have been grouped together and arched, as at the palace at Ctesiphon.

On comparing these two buildings, it will be found that a great resemblance exists between them, almost sufficient, indeed, to prove the identity of the epoch of their erection. Although the palace at Ctesiphon contains but one great hall, flanked by small chambers, the general design of the building is evidently similar to that of the palace of Al Hather. To this day, the mode of construction adopted by the Sassanian kings of Persia, has been preserved in most parts of that country, particularly in such provinces as are exposed to great summer heats, such as Fars and Khuzistan.

The centre of the house is usually occupied by a hall of large proportions, always vaulted, and completely open on one side (generally on the north) to the air. This hall is called the "*Aiwan*," and extends the whole depth of the building. It is only abandoned during the winter months, and is a cool and pleasant residence during the hot weather. The "*Aiwan*" is flanked by a number of small rooms, generally forming two stories. These are used for winter residence, and are at other times occupied by guests and servants.

The whole building stands in the centre of a court-yard, ornamented with gardens, reservoirs, and fountains, and is usually surrounded by a series of apartments used as offices, &c. The palace of *Al Hather* has three *Aiwans*, but in other respects resembles in its general plan (though, of course, on a very large scale), the modern House of Shushter, in Western Persia. The dependent buildings, which surrounded the palace at Ctesiphon, have long been buried in ruins—scarcely any traces of them remain—but it is possible that the "ensemble" was originally such as above described.

It will be remembered, that the palace at *Ctesiphon* was constructed of *brick*, while that at *Hatra* is built entirely of hewn stone. The height of the arch of the great hall at Ctesiphon is actually 106 feet from the ground, which may be somewhat raised by the ruins, whilst that of the outer hall of *Al Hather* could scarcely have exceeded 60 feet.

The *Aiwans* were furnished with great luxury and splendour. It was probably to the *Aiwan* at Ctesiphon, still standing, to which appertained the magnificent carpet, found by the Arab conquerors on the sack of the city.

This carpet, as stated by Gibbon, was of silk, 60 cubits square, a paradise or garden depictured on the ground; the flowers, fruits, and shrubs were imitated by the figures of the gold embroidery, and the colours of the precious stones, and the ample square was enriched by the variegated and verdant border.

Both at *Al Hather* and at *Ctesiphon*, the rings and nails to which lamps and tapestry were suspended, are found on the walls and ceilings. I was unable to find any remains of the capitals of the columns and pilasters. It is probable that a simple cornice, with an ovolo or some such ornament, ran round the whole building, and formed at the same time a kind of capital to the pilasters; such a cornice may still be traced on the outer wall, and on the square pilasters at the back and sides of the palace. The roof was evidently flat, and formed an extensive terrace, to which staircases led from various parts of the edifice.

The ground-plan exhibits a chamber 28 feet 7 inches deep, and 20 feet 3 inches wide; the entrance is 14 feet in width, and is formed by an arch richly adorned with human busts, inclosed by a narrow frieze. The head-dresses of these figures, which are both male and female, are extremely varied and peculiar. They generally resemble those found in Persia on

* Read at the Institute of Architects. See p. 539, *ante*.

monuments of the Sassanian dynasty, are elaborately ornamented with curls, and project considerably from the head. Many of the figures have helmets and caps of various shapes. The draperies are richly decorated with jewels and ornaments.

A cornice, with a double row of acanthus leaves, runs along the interior and exterior of the entrance, immediately below the spring of the arch. The cornice frieze and arch are similar at the entrances of the three outer chambers. A second chamber leading out of the last, 25 feet 9 in. by 20 feet 5 in., receives no light but by the doorway. There is a large hall, or Aiwan, 98 feet 8 in. by 49 feet. The ornaments over the arch differ from those at the entrance of the small chamber; two plain stones occur between each head or bust. The cornice has but one row of acanthus leaves, beneath which runs a spiral. Within the hall are six pilasters, three on either side, decorated with human heads. Four of these pilasters have two heads *beneath* and one *above*; in the others the order is reversed. The arch of the vault springs from the summit of these pilasters. A cornice with ovolos runs round the hall, about 6 feet from the top of the pilaster; and a second cornice, with a simple spiral ornament, occurs about 10 or 12 feet from the pavement.

In a chamber leading out of the Aiwan, 31 feet by 20 feet 9 in., the doorway is ornamented with a cornice, elaborately carved into a kind of net work. The chamber has no window.

There is an isolated hall, surrounded by a lofty vaulted passage. The entrance is blocked up by fallen stones, and I was unable to enter to take dimensions of the hall, but which I should say, may be about 50 feet square; and the width of the surrounding passage averages about 11 feet. This passage is lighted by occasional windows, but the inner hall receives light through the doorway alone. The cornice which crowns this entrance is richly sculptured with human busts and fabulous animals, which may perhaps have reference to the worship of the Persians.

[The other chambers were described by Mr. Layard, but we have not space for the account. The walls which form the outer and inner courts, and surround the building, are built of cut stone, and are seldom less than 6 or 8 feet in thickness. They form, consequently, a kind of fortification to the palace.]

There is little to be added to the above description. The two courts appear to have been paved with stone. The reservoirs were supplied by deep wells, which still exist. The water was conveyed through a small channel cut in the pavement, and crossing the court.

The stone used in the building is a fossiliferous limestone, said to have been brought from the Sinjar hills. The blocks are well cut, neatly fitted, and firmly united by a very fine and tenacious cement. The stone, from its nature, is subject to rapid decomposition, and the ornaments and sculptures have been much injured by exposure. The ruins have assumed that rich golden tint which adds so much to the beauty of the great ruins of Syria.

There are sculptures in very high relief, such as a ram with the tail of a fish, human busts, &c., on the face of the palace, the use of which is not apparent; they may have been simply intended for ornament.

Mr. Ainsworth, in his memoir, has mentioned the peculiar marks, which are to be found on almost every stone employed in the buildings of *Al Hather*, and has given representations of many of them. He seems inclined to attribute some mysterious meaning to them. I have found similar marks on numerous buildings of the Sassanian epoch: for example, at Bisuten and Isfahan. In the latter city I was first induced to look for Sassanian ruins by seeing them upon stones employed in modern edifices; and I soon succeeded in finding several fine Sassanian capitals. I believe these marks to be purely fanciful, and not to be the letters of any particular alphabet: letters from a variety of alphabets may be traced amongst them. They appear to have been used for building purposes, and not to have reference to religion or astronomy. They occur on the face of the stones, in the centre, each stone being provided with one mark.*

The want of symmetry in the architecture at once strikes the eye. The height of the arches, as well as the width of the entrances in the façade, varies—and it is not improbable that there were pilasters over the lower arches, as at Ctesiphon, where the same neglect of the rules of western architecture is observable. It is evident that the style of architecture itself has been borrowed from the West, and has been adapted to the taste, manners, and climate of the east. The same thing is visible in most of the Sassanian monuments existing within the ancient limits of Persia, and there are few travellers who do not attribute the elaborate sculptures of Tak-i-Bostan, near Kirmanshah, to Roman artists.

* It would be curious to compare these marks with the collection published by Mr. Godwin in the "Archæologia."

FOREIGN INTELLIGENCE.

Popular Traditions of Old Continental Buildings. — Strange are the reports which have reached our times, relating to some mediæval structures in those countries. It is difficult to conceive, in the first instance, how such piles as those cathedrals, bridges, castles, could have been erected, without any of the complicated *machinery* of estimates, contracts, tenders, — ledgers, cash and other *books*, which constitute no insignificant portion of our present *works*. This, however, will become somewhat more conceivable, if we come to know, that the wages of a labourer at the building of the bridge of Prague (14th century) are said to have been one *Groschen* a day, equivalent to five farthings English. One of the corners of the bridge is yet pointed out, where the architect (*Werkmeister*) sat every evening with his leather bag, and put the tiny coin in the hands of the men as they passed by. Himself and his assistants lived, most probably, in some convent or hostelry, and fared and messed together. Man had not become then a *quibbling* animal. The next tradition current at some of these places is, that the lime for the building of these piles was mixed with the white of eggs.

French Glass-makers in England. — The Belgian, and, subsequently, the French papers, have made a great *fuss* of late, regarding the *enticing* of French workmen in the newly-established glass manufactory at Hull. From Lille alone twenty men had already gone, and fifty were expected to follow. That our neighbour contemporaries should urge every *fair* argument to prevent French and Belgian glass-makers from coming here, is no more than could be expected. But they have stated a fact which we wish not to be true, and if so, to be refuted. It is said, that one of the overseers (*sous-maître*) from the manufactory of Clichy-la-Garonne had *taught* the society for which he worked (at Hull) some of the French proceedings, that the society attributed them afterwards to themselves, as their own invention, and made underhand steps for obtaining a patent. It is also stated that workmen, when ill, have been immediately dismissed, and would have died miserably if not assisted by the French consul.

The Catacombs of Paris.—It is well known that the districts of St. Jacques and the faubourg St. Germain, at Paris, are completely undermined by ancient quarries, known under the above name. As these subterraneous galleries became ruinous for some time past, works were undertaking for either filling them up, or securing them by walls. On the square of the College Rollin, there exists a pit, which goes right down to the catacombs, and it is by this opening that the building materials have to pass, for saving carriage, &c. For facilitating still more this operation, *débris* and other rubbish, and even large slabs of stone, are simply thrown down—which, however, lately caused the death of one of the workmen.

Hermann's Sketches of German History.—This artist, who, like Cornelius, has lived at Berlin for some years past, is executing an original idea, viz., to represent the chief events and phases of German history in a number of large sketches—about fifteen—to be executed in steel. The chief event to be placed in the middle—surrounded by lunettes, representing other co-ordinate events. The king is much interesting himself about this likely to become national undertaking.

Canina's Work on Architecture. — We are happy to inform our readers that the library of the British Museum has acquired a copy of this costly work—six vols. in large folio. Rome, 1840-1844.

ASSESSMENT OF ST. JAMES'S PARISH.

In consequence of an objection raised by Mr. Cafe, at the last petty special sessions, to the effect that the poorer classes occupying houses in the narrow and confined streets were rated on the actual rental, while the greater portion of the best streets, including Pall-mall and Regent-street, which had increased in value very much, were rated at two-thirds, and frequently at only half their rental; and from the evidence which was recently adduced, it seems probable that St. James's parish will be re-assessed.

Amongst other cases quoted were two houses in Oxford-street, returned to the income-tax at 180*l.* and 165*l.*, rated to the poor at 56*l.* and 61*l.*; three houses in Regent-street, returned to the income-tax at 400*l.*, 300*l.*, and 267*l.*, rated at 130*l.*, 120*l.*, and 87*l.*; three in Pall-mall, returned to the income-tax at 210*l.*, 275*l.*, and 525*l.*, rated at 90*l.*, 77*l.*, and 140*l.* respectively.

The Hon. Mr. Byng, the chairman, said the magistrates were of opinion the rating was not in accordance with the Parochial Assessment Act, and that after this intimation, the vestry would probably re-assess the parish. They adjourned the case to the next special session in January, to give them the opportunity, and the magistrates would then deal with the case accordingly.

"FAILURES OF RAILWAY WORKS, AND QUALIFICATIONS OF ENGINEERS."

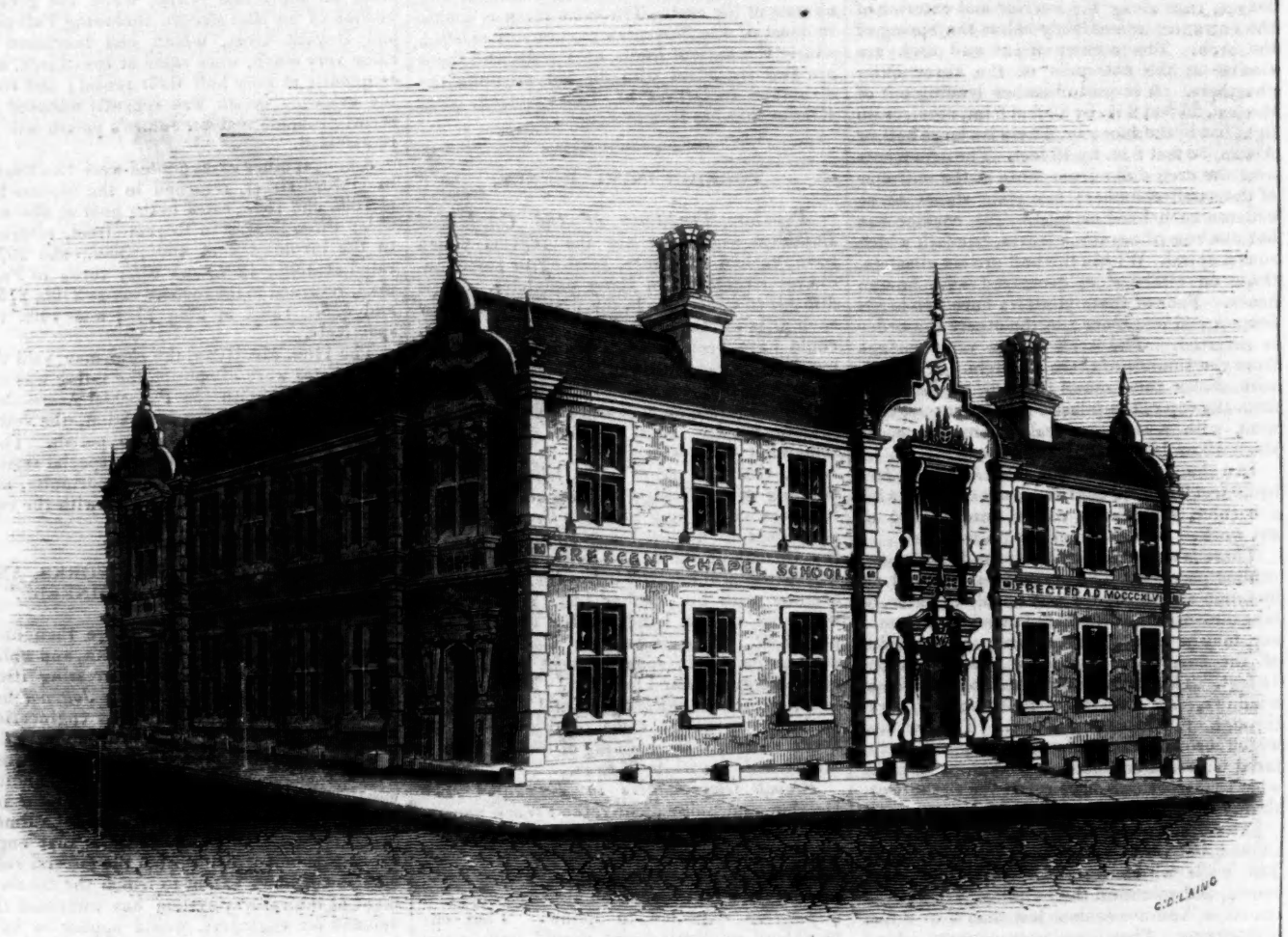
Following up a subject more than once recently broached in The Builder, and which every week is more and more pressing itself into notice, we find the *Mining Journal* has been drawing the attention of its engineering readers to the subject, under the above title. "It has been often observed," says the writer, "that a sudden demand for a commodity, which much exceeds the supply, is apt to induce adulteration and deterioration for a time; and it must be admitted, we fear, that engineering is not exempt from the general rule. The incalculable extent to which the development of the railway system has increased the demand for engineers, would appear to have been, hitherto, any thing but favourable to the general character of the profession. The supply of engineering ability has declined, while the necessity for it has increased; and we seek in vain among the works of the present time, for a parallel to those of Telford, Rennie, and Smeaton. This is mainly attributable to ignorance and thoughtlessness on the part of those who have the employment of engineers. In particular, little or no distinction seems to be popularly understood to exist between an engineer and a surveyor; and hence it has of late years been no uncommon thing, to find impudent pretenders of the latter class, who never were in any office but that of a land surveyor, or measurer, assuming the title of civil engineer; and this, through aid, perhaps, of a few sycophant-loving patrons, and ignorance and inattention on the part of the many obtaining the direction of works requiring scientific knowledge and constructive skill. Such quacks set themselves up in opposition to the members of a profession requiring a specific and arduous education, superadded to the highest order of talent—they offer to the gullable directors of public works the bait of cheap engineering — they look sharp in all directions to pick up the contrivances of genius and science, conceiving that they can do every thing by imitation. They find themselves growing rich, and begin to consider themselves great men; when some change of circumstances—slight it may be—sets their imitative powers at defiance: disaster follows miscalculation, and their works and reputation crumble together.

Such is the system whose effects begin to be felt in different localities; and which, unless changed in time, threatens a great extent of the internal communications of Great Britain with the fate of the potato crop.

The way to safety for future works is readily found. Let the character and history of the engineer be traced to its very roots! First, as to original genius! for, if a man has not been born an engineer, he never can be made one; secondly, as to education—the history of which, in fact, will answer the first inquiry also."

CRESCENT CHAPEL SCHOOLS, LIVERPOOL.

Mr. J. A. PICTON, Architect.



NEW SCHOOLS, SALISBURY-STREET, LIVERPOOL.

These very ornate schools are now in course of erection by the congregation of the Crescent Chapel, Liverpool, under the direction of Mr. J. A. Picton, mentioned last week, and are calculated to accommodate 400 boys, 360 girls, and 400 infants. The plan forms three sides of a quadrangle, the fourth side open to the yard.

The infants' school is 66 feet by 33 feet, over which is the girls' school, of similar size. The boys' school occupies the opposite arm of the building, 66 feet by 36 feet, one story only in height. Each of the schools has attached to it class rooms and cloak rooms. There are also an entrance hall, board room, library, and apartments for a resident keeper.

The style of the design, as shewn by the engraving, is Elizabethan. The walling is faced with a blueish grey stone, which rises in thin beds from three to six inches thick, the joints pitched off to a straight edge. The plinth, coins, window dressings, &c., are of red sandstone, the contrast between the two colours adding materially to the effect.

The cost, exclusive of the site, will be about 3,500*l.*

THE COLOSSAL WELLINGTON.

Sir,—If it is true, as reported, that Lord Morpeth has requested the Royal Academicians to give their opinions respecting the equestrian statue of the Duke of Wellington on the arch in Piccadilly, we may hope that after all it will be taken down, as one of the most eminent of that body has already recorded his judgment against its continuing where it is.

The question will then be, *What is to be its ultimate resting place?* I would take the liberty to suggest that Hyde-park will afford the most suitable of all localities, where no other preparation would be necessary than to take advantage of some rising ground, or natural elevation, and to place thereon the figure upon a simple platform of granite, so that nothing would interfere to detract from its colossal proportions.

Such an appropriate site will be found by taking a line east and west from Grosvenor-gate to Kensington Palace, intersected by one north and south from Albion-street gate to the Knightsbridge cavalry barracks; there, though the statue would not stand in the way of the troops when reviewing in the park, it would be seen by them; and in after-times, when the great captain shall live only in the memory of a grateful nation, his spirit would still seem to direct the evolutions of his country's troops as they will march by the effigy of the departed warrior, and the honours bestowed upon him when living, unparalleled by those paid to any other Englishman, will incite the beholders to emulate his deeds, though they may not hope to surpass them.

If no other objection existed to the statue remaining where it is, your remark upon the discrepancy of a figure in a modern costume being placed on a structure of classical design would be somewhat fatal to its repose. Another valid ground of dissent has been suggested, that it is a breach of etiquette to place a subject, however illustrious, over the privileged entrance to the abode of his sovereign; and as the great characteristic of the noble duke is his single-hearted loyalty, such a suggestion would have great weight with his grace, if his own feelings alone could be consulted.

If the statue is allowed, in defiance of public opinion, to continue where it is, we may expect to hear the observation made by Cassius on Cæsar applied to him who is now

"The foremost man of all this world,"

in a parody by some "envious Casca,"—

"Why, man, he doth bestride the narrow *arch*
Like a Colossus; and we petty men
Walk under his huge legs."

It is very remarkable that it should be the fate of nearly all our public statues and monuments, whatever may be their own intrinsic merits, to suffer by their position; for instance, the other glory of his country, Nelson, is mast-headed, hoisted among the clouds, half the year enveloped in fog, instead of being placed near the ground, where all might look upon the features of one whose memory is so dear to his countrymen. Thus all the efforts of the sculptor are marred the moment his work leaves the studio, by the ill-directed zeal of those who have the controul of its destination.

In its present situation the finish and workmanship of the equestrian statue cannot be appreciated; but in the position I have indicated, not only would it be seen to the greatest advantage from all parts of Hyde-park, but also from Kensington-gardens, where I still hope to see a new royal palace one day erected, and whence future sovereigns of England may look with gratitude on the effigy of him who served their ancestors so well both in the field and in the council, a lesson to all that the greatest in war may be also the greatest in peace, a character—

SANS PEUR ET SANS REPROCHE.

Whilst on the subject of the palace, I may be allowed to observe, in answer to a remark in the *Art-Union*, upon "those who had previously so much to say being now silent," that so far from having lost sight of the matter, I am publishing, in a pamphlet, the letters to which you kindly gave insertion, with some additional suggestions, with the view of distribution among the members of the houses of legislature. George Russell French.

7th November, 1846.

*** The moment before going to press we received intimation, from a quarter likely to be correctly informed, that *the statue is positively to come down.* We take some credit to ourselves for the issue of this affair, and shall have a word or two to say on the part played by contemporaries.

ANCIENT CARVING FROM THE NEW INN, GLOUCESTER.

CHURCH OF ST. MARY DE CRYPT.

Our readers will probably remember Mr. Britton's interesting paper on the New Inn at Gloucester, read at the British Archæological Association in August last.* From this it appears that in the time of Abbot Seabrooke, who presided over the monastery from 1450 to 1457, the New Inn, in Northgate-street, was built by John Twining, a monk, and that the building, which is very extensive, is commonly said to be constructed entirely of chestnut-tree timber. Almost half of its material is wood, cut into large beams, and placed horizontally, perpendicularly, and diagonally, with the intermediate parts filled either with brick nogging, or lath and plaster. The whole building extends 137 feet from east to west, exclusive of the stables, &c., which continue 72 feet further.

In 1836, Mr. Britton published a view of it in the *Picturesque Antiquities;* but since then some modernizations have been effected, which have destroyed the antique air of the place. The side of the house forming part of the lane named after the hostel, is in nearly its original state, and the elaborately carved import here engraved, from a drawing by Mr. Fairholt, will give an idea of the richness of the original building. The lower part of the carving has been destroyed, either by weather or wanton mischief: perhaps both have had their share in its demolition, as the head of the angel bearing the scroll is evidently broken off. The lower part may have decayed, as the outer edge has done.

The pilgrimage to the shrine of the murdered Edward II., in Gloucester Cathedral, led doubtless to the building of such large houses of accommodation for travellers. That the monks had a share in their construction is evident, not only from what has been said of the builder of the New Inn, but also from an inscription, still remaining over a gateway in the same street, and which was formerly part of the old Ram Inn; this runs as follows:—

"En ruinosa domus quondam quam tunc renovavit
Monachus urbanus Osburne John, rite vocatus."

"Behold the once ruinous house which John Osburne, commonly called the Town Monk, rebuilt."

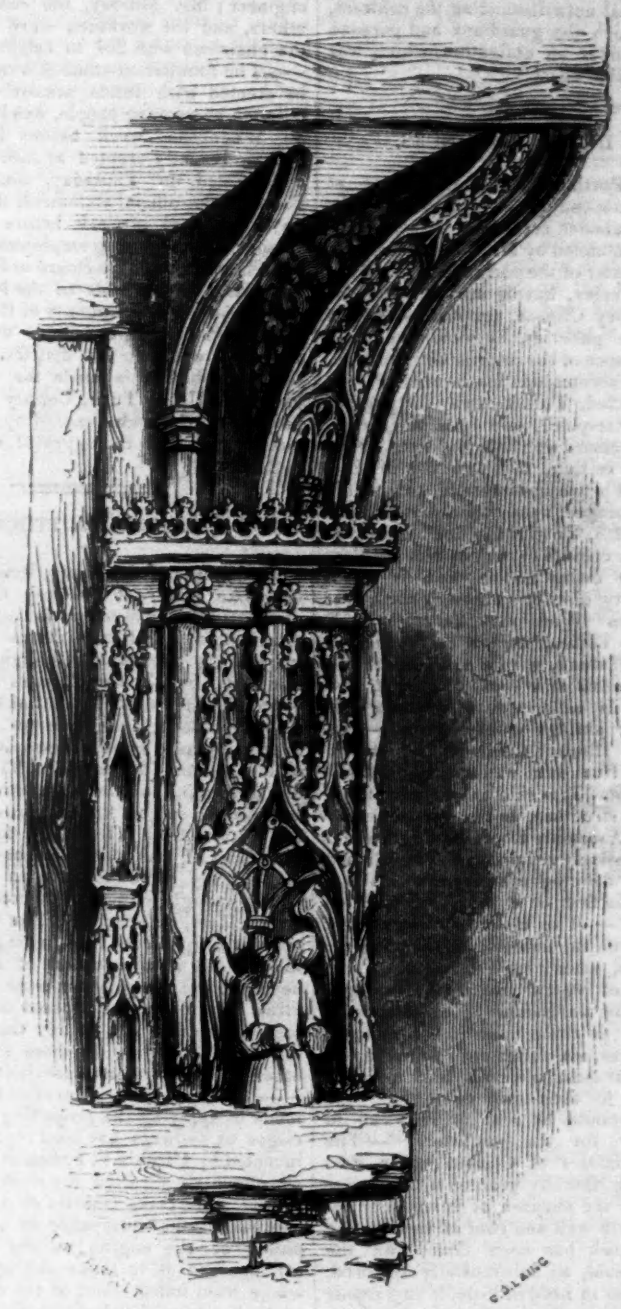
While speaking of Gloucester, we take the opportunity of pointing the attention of those who may visit this city to the very complete restoration of St. Mary de Crypt Church, which was effected at the end of last year, under the direction of Messrs. Daukes and Hamilton, mainly through the exertion of the Rev. A. Sayers, the rector, to whom the parish, as we understood, are still indebted for some of the cost.

The greater portion of the church belongs to the 15th century. The ground plan is a latin cross. The chancel is 45 feet long by 18 wide. The nave is of the same dimensions. In the centre are four piers, from which springs an elegant central tower surmounted by pinnacles and turrets, about 120 feet from the ground. The transepts are 16 feet square. There is a porch on the south side. The font, executed by Mr. Estcourt, of Painswick, is similar in its proportions and tracery to that in St. Mary Magdalene Church, Oxford.

The floor of the church is laid with tiles throughout. The roofs are all wood, and their general appearance harmonizes with the style of the whole building. The seats are of oak, and are all in the form of open benches, ornamented throughout with the linen pattern. The chancel is exceedingly interesting, displaying an eastern sepulchre on the north side, sedilia and piscina on the south, and mural paintings on both. The centre pillar on each side which carries the arches, separating the chancel from its aisles, is divided at the bottom and spread out on either side to form a doorway leading to the aisle, and produces a novel effect. At the west end is a Norman doorway under perpendicular windows, the work, of course, of two periods; and, in its original state, clearly recognizable as such. The whole of the west-end being now restored, however, with the same stone and same workmanship, a discordance is found which is not satisfactory to the observer. The proper course to be pursued under similar circumstances, is a point worth discussion.

* See p. 371, *ante*.

ANCIENT CARVING, FROM THE NEW INN, AT GLOUCESTER.



We learn from the *Gloucester Chronicle*, that public rooms are about to be built there, and that a new thoroughfare to the docks, from Southgate-street, is to be formed. One of the City Commissioners said wisely, at the meeting where this last step was resolved on:—"The improvement of a city helped the trade of a city, just as the improvement of an individual's premises increased his business; and if they looked at Liverpool, and other rising and prosperous places, they would see that the inhabitants had been very liberal in making improvements."

EXTRAS AND OMISSIONS.

CONTRACTS.

On the 10th inst., an action was tried in the Vice-Chancellor's Court, brought by Mr. Kirk against the Bromley Union, to recover the amount of certain works (290*l.* 18s. 6d.) done extra from contract. The contract contained a clause that it should be in the power of the Board of Guardians, or the architects (by the authority of the guardians), to direct such alterations to be made in the works as they might deem expedient, such alterations not to render the contract void, but to be made by the contractor according to such instructions as he might receive; the value to be ascertained by the architects, and added to and deducted from the original amount; but that "no allowance for extra work was to be made, except the same was ordered in writing," and that there should be no deviation from the original contract without the express sanction of Messrs. Savage and Foden (the architects employed by the guardians).

The defendants alleged that the alterations were made without their cognizance or sanction in writing as required by the contract.

The Vice-Chancellor said that the rule clearly was, that a contract, when made, solemnly bound both parties, but it was also true, that both might be equally bound by the conduct pursued by one and acquiesced in by the other, notwithstanding the contract. This appeared by the case of the "Duke of Bedford *v.* Moore," where silent consent was deemed sufficient to prevent a party from enforcing a contract. It was evidently the meaning of this contract that the corporation should incur no additional expense for deviations and alterations; this appeared by the written order being provided for; but the defendants were not thereby prevented from holding out inducements to the plaintiff to make such alterations by promises of payment. It was stated in the

bill that the plaintiff had communicated with the clerk of the works only, but considered that he was in fact acting under the direction and with the sanction of the defendants. Now this appeared to be the fact, and was admitted by the demurrer. His (the Vice-Chancellor's) opinion was, that notwithstanding the contract, the course which the guardians had pursued placed them under an obligation which was enforceable in that court.

NOTES IN THE PROVINCES.

The new Portland stone lighthouse at Shoreham is now completed, and in action, in lieu of the old wooden erection. Its construction was superintended by Mr. Samuel Sanders, the harbour-master of the port, who planned the fabric.—Mr. Ferrey, having made a survey of Sherborne Abbey Church, proposes—1st, To remove all the galleries, by which not only will the appearance of the interior be improved, but a far better accommodation be made for the congregation; 2nd, To take away the present incongruous altar-piece, and open the arches behind it, now closed up; 3rd, Either to scrape the walls and ceiling, to show the original stone, or if that prove unsuccessful, to give the whole, when scraped, a thin wash of one warm stone colour; 4th, To gild the fine bosses, and give the proper colours to such as bear heraldic devices. The estimated expense is about 5,000*l.*—Trinity district church, Yeovil, was consecrated on Wednesday fortnight. It is a cruciform edifice, in the early English style, of Yeovil stone, with a nave, north and south aisles, north and south transepts, and chancel; and is estimated to accommodate 1,000 persons; sittings chiefly free.——The new church of Illogan, Cornwall, noticed in our last week's Builder, was opened on Wednesday fortnight. It is said to be a very large and handsome structure, in the perpendicular style.——The Assembly Rooms at Cheltenham have been extensively repaired and embellished for the winter dancing campaign, which was opened with the first of a round of balls on Monday week.——The Halstead vestry lately met to consult on the necessity of lighting the town with gas, when, by a majority of one, this very select vestry voted for the light rather than the darkness. A contemporary suggests that, as these Halstead illuminati, who need no gas, are determined to propagate their sect, and at least to convert the "majority of one" back to their own old light, "the schoolmaster should be sent to Halstead to clear the way for the gas-fitter."——The parochial authorities of Clarbro', near East Retford, having liberally granted a larger rate than usual for the purpose of completely restoring the north wall and roof of their parish church, the work has been done, and the church, it is said, so substantially restored, that it will stand in need of little, if any, repair for many years to come—an example which some others in that district would do well to imitate.——The Doncaster Town-hall was to be pulled down in course of this past week, to make way for the new buildings. There seems to be a desire that the figure of Justice, which stands now, or which stood, on the top of the old building, and which is the workmanship of Nollekins' assistant, Guise, should occupy a like position on the pediment of the hall about to be built.——The Norfolk Railway Company have contributed the very handsome sum of 3,000*l.* towards the erection of the new church at Thorpe Hamlet, Norfolk.——The new works at Yarmouth Pier are of rather an extensive description. According to particulars furnished by Mr. William Teasdell, the deputy-engineer, they commenced about the middle of April last, since which time 920 piles have been driven, covering an extent of 1,048 feet. There are 30,378 superficial feet of piling, and the extent to which they are driven into the ground is 1,079 feet, or 3,360 yards. The extent will be more readily appreciated, from the statement made that very nearly two miles of wood have been driven into the ground in about six months. Similar works have been in progress at Lowestoft.——The new cemetery at Rotherham was consecrated on the 24th ultimo. It consists of about three acres of sandy soil, well situated on dry and sloping ground, three-quarters of a mile south-east of the town.——The first stone of the Victoria Dock, at Hull, was laid on Friday last, without much ceremony, as the opening of both the railway dock and of this more extensive undertaking, are to be held as more fitting occasions for public display. The stone was laid by the chairman of the Hull Dock Company, in presence of Mr. Hartley, the engineer; Mr. Murray, the contractor; and others, and the workmen were presented by the chairman with 20*l.* to celebrate the event.——The foundation-stone of a new church, to be erected with funds almost entirely contributed by working people, was laid at Preston on Wednesday week before last.——The church recently erected at Aston-Magna was consecrated on Thursday, same week.——From a semi-official statement, it appears that up to the close of week before last, 110,251 persons were receiving employment and wages in Ireland through the Board of Public Works, but owing to the riots of the idle and disorderly peasants of the county of Clare, the Lord Lieutenant has suspended for the present all the public works in that district. Large presentments had been made for works in the barony of Upper Tulla, County Clare, a great proportion of which (exceeding 20,000*l.*) had already received the approval of the proper authorities.

RAILWAY JOTTINGS.

In the case of the Tring, Reading, and Basingstoke bankrupt Railway Company, the directors will have to go through nearly the same unpleasant formalities as if they were individually bankrupt, although, by 7th and 8th Vict., cap. 3, sec. 2, such bankruptcy is not to be construed to be that of the individual. The supposed reason why no other railway companies have availed themselves of the act of last session (9th and 10th Vict. c. 28), for the facilitation of the dissolution of railway companies, subject to the provisions of the Act (7th and 8th Vict. c. 3), for winding up the affairs of joint-stock companies in general, is, that the directors have in general been strong enough, either in the confidence of the scripholders, or as scripholders themselves, to prevent scripholders from taking the management of the winding up out of their hands, by declaring the company bankrupt; which three-fifths of a meeting composed of one-third of the scripholders can at any time do. As to the rights of paying directors to recover from others, we may refer to previous jottings.——A new, though previously-suggested, mode of applying the propelling power to carriages on railways has been reproduced or re-invented by Captain F. Freisauff von Neudegg, who formerly directed the studies of the sons of the Arch-Duke Charles of Austria. This consists in the conveyance of the propelling power of the engine to the axles of the carriages, so as to make the advance of the whole train independent of the mere adhesion of the locomotive's wheels to the rails, and thus so far to obviate the anomalous principles on which our whole railway system has been hitherto based. Each carriage will thus become a locomotive *per se*, or rather *in se*—only having its locomotive power legitimately imparted to it by the engine carriage, through appropriate machinery; not illegitimately, if we may so speak, through the mere influence of the ponderosity of the engine in griping the rails with its wheels. The advantages of such a system in the ascent of steep gradients would be obvious. The same officer has invented a break, by means of which a train may be conveyed down hill with perfect safety without diminishing the rate of speed. Carriages built on the principle of Captain Freisauff (previously patented, it is said, in this country by a Mr. James), have been already tested on a line with a rise of 1 in 40, and are reported to have drawn a dead weight of 600 tons at the minimum rate of 1¼ German miles (8 English miles) an hour, and conveyed the same down an inclined plane with perfect safety.——Captain Brandreth, Royal Engineers, is appointed one of the Commissioners for the supervision and regulating of railways, with a salary of 1,200*l.* a year.——Sir John Tyrell has been highly distinguished by the Eastern Counties Railway Company, who, in honourable recollection of services long past, have accorded to him the unprecedented privilege of stopping any train for his convenience, at Boreham, where three is no station, by merely displaying a flag.——A Liverpool correspondent of *Herepath's Journal* says that the Croydon Railway is to be again converted into an entirely locomotive line.——Lord Harborough and his redoubted engineering and other railway combatants have at length proclaimed an honourable truce. Indeed, while the tunnel line to the south of Stratford-park is to be abandoned, his lordship has agreed, for a consideration, that the railway is to cross a small portion of the park near the celebrated "battle field," itself, at Saxley-bridge. For this privilege, and for the land taken for the railway through his Leicester and Rutland estates, his lordship is to be compensated with the sum of 25,000*l.*——Something like an expense of 100,000*l.* is vaguely hinted at as being probably necessary to repair the breaches and keep out the sea from the South Devon line at the scene of the late disaster. It surely cannot be meant that the contractors are to pay for such enormous improvements. Indeed the company's engineer, Mr. Brunel, has formed an extensive plan of restoration, irrespective altogether, it would appear, of what was previously done, or ought to have been done, by the contractors, in the original construction of this part of the line; and the directors, it is said, will spare no effort or expense on what is deemed "a life and death affair to the shareholders and the public." Cargoes of limestone were of late continually arriving at the field of enterprize; 80 to to 150 men and 27 horses were employed, and 32 additional masons were required. A sandstone cliff of great height has been blasted off to the perpendicular, and other extensive works are in progress.——During the late storm, great damage has been done by the sea to a portion of the railway works at Penmaenmawr, on the Chester and Holyhead line. A considerable extent of the sea-wall, on the Bangor side of the cliff, has been destroyed; and all the materials, masons' tools, &c. washed away. It is said that 2,000*l.* will barely cover the damage.——On Thursday week the contracts for the York and Market Weighton line, forming the more direct route between York and Hull, were let by the York and North Midland Directors. The works for the formation of the line were let to Messrs. Jackson and Beau, who constructed the Bridlington and Hull railway. The construction of the stations and other buildings was let to Messrs. Burton and Son, of London.——The rain seems destined to break up and wash away the North British line entirely, as if it were so much structure reared out of ice and mud. One dilapidation follows another in regular succession, and some parts of the line must be a total wreck already. The *Newcastle Journal* gives the following as the most recent dispatches:—"A portion of one of the embankments at Lamberton, where the line approaches within a few yards of the sea, gave way yesterday week. One of the temporary bridges reported by General Pasley to have been secure, and perfectly satisfactory to him, has also been swept away. This occurred on Saturday; and on Monday the large wooden beams, or piles, were picked up some distance from the spot where they had been placed, and were to remain as enduring monuments of mechanical legerdemain and paradoxical science. But the disasters are not confined to the embankments and the bridges. The Whinstone cuttings have been in many places ruptured by the recent frosts and thaws, trifling as they have been, and masses of stone and earth have descended, like vast avalanches, on the line, burying the railway, and interrupting the progress of the trains. Only on Thursday morning a train from Edinburgh was on the point of being buried by one of these displacements, the escape being almost miraculous."——The Barentin viaduct, on the Rouen and Havre line, was opened on the 25th ultimo. "The solidity and beauty of the work, says *Galignani*, drew forth the warmest commendations from gentlemen who, as directors of the most esteemed railways in England, may fairly claim a judgment on the merits of such constructions; and when the extent of work, upwards of 100 feet in height and 1,500 feet in length, rebuilt in a short time (six months) is considered, it will be acknowledged that the energetic exertions of the contractors deserve the highest praise."——Such is the demand for Irish labourers on French lines, that they can earn from 5*f.* to 6*f.* a day, while the native workmen only receive from 3*f.* to 3½*f.*

——The Loire, in the late inundations deluged the Orleans and Bordeaux line, sweeping away the station; covering the line with a vast lake between Amboise and Vauvray, and tearing away 100 yards of sleepers and chairs.

CENTRAL ORGANIZATION OF THE ELECTRIC TELEGRAPH.

This highly interesting work is now in rapid progress. For the present, if not for perpetuity, there is to be something like a two-fold centre in the metropolis, one at the Royal Exchange and Lloyd's, for behoof of the city and the mercantile world at large, and the other in the Strand, for behoof of the West-end, the legislature, and the general converse of the country with its metropolitan head. The busy work of laying down the wires between the station of the South Western Railway, at Nine Elms, and the grand Strand centre, has been begun. The nerve like tubes are being run along Vauxhall-street, Kennington-lane, and Waterloo-bridge, towards the vital centre, where the wires from every railway telegraph are to meet, in one unbroken inter-communication between the most distant parts of the country. Every precaution is being taken to keep the wires dry, and to preserve their total isolation. They are bound with yarn, water-proofed, and enclosed in leaden half-inch tubes, two of which in succession, inclosing four copper wires, pass through a series of iron pipes, coated inside and out with heated pitch, as the exterior of the leaden tubes also are. The whole apparatus is sunk beneath the surface to a depth of about eighteen inches, and run along, as the ordinary gas and water-pipes do, like the nervous fibrils amongst the arteries and veins of the living body.

The Eastern Counties Railway Company are to extend their telegraphic wires in a similar way to the Royal Exchange and Lloyd's, so that instantaneous communication with Liverpool, and other points in the radius of the circle, will be forthwith established in that centre. Proofing posts are being erected at certain distances, in order to keep the wires in working order, and engineers are engaged in completing the electric wires along the branch lines from Ely, Peterborough, Stamford, and Syston, to Derby; and thence along the present Derby, Birmingham, and Manchester lines to Liverpool.

NEW BUILDINGS IN GLASGOW.

The National Bank and Stock Exchange, in Queen-street, Glasgow, forming one pile of building, are nearly completed, and, according to the *Glasgow Citizen*, produce a satisfactory effect. "The style of the architecture of the Bank is Italian, of the Venetian school, with Ionic columns and pilasters, having enriched angular capitals. The windows are arched, ornamented in alternate courses of vermiculated masonry. On the key stones of the front windows are carved, in *alto relievo*, masks, representing the five principal rivers of the kingdom; that over the entrance being intended to represent the Clyde. The Stock Exchange is of the Florentine school of Italian architecture." Mr. Gibson, of Westminster, is the architect. The ornamental portions of the work are by Mr. Thomas, the modeller employed at the new Houses of Parliament.

Mineral Wealth of this Country.—In the course of a lecture to the general classes of King's College, by Mr. Tennant, on mineralogical geology, the lecturer stated, that the annual value of the mineral produce of this country amounts to about twenty-five millions. Of this, 9,100,000*l.* is from coals, 8,400,000*l.* from iron, 1,200,000*l.* from copper, 920,000*l.* from lead, 400,000*l.* from salt, 390,000*l.* from tin, 60,000*l.* from manganese, 35,000*l.* from silver, 22,000*l.* from alum, 8,000*l.* from zinc, and 25,000*l.* from the various other metals, as antimony, bismuth, arsenic, &c.

Coal for Metropolitan Gas.—On an average during the darker months, 890 tons of coal are every day consumed in the metropolitan gas-works.

Toon Wood Admissible Free.—The above wood, the produce of Aracan, is decided to be a furniture wood, and to be added to the "free list."

IMPROVEMENTS IN HATFIELD HOUSE.

The recent visit of her Majesty to Hatfield House has directed attention to this interesting specimen of domestic architecture. It was erected in 1611 by Sir Robert Cecil, on the site of an earlier building, and is amply illustrated in Mr. Robinson's "Vitruvius Britannicus." The architect is unknown; Mr. Robinson ascribes it to John Thorpe. The expense of erecting it is said to have been no more than 7,631*l.* 11s. 3d., including fencing in two parks and other works. Some items from a record of the expenses will serve to shew the prices of materials and labour at that time.

	£.	s.	d.
Item, for 60 tunne of Caen stone, at 30s. per tunne	90	0	0
Item, for the making of 7 hundred thousande of bricks, at 7s. 9d. per thousande, besydes carriage	341	5	0
Item, for the cuttinge of 48 stone lyons, which stande on the open work of masonrye about the house, for xi. tafferils more, for the carvinge the pew heads in the chappell, the stone pedestells in the open worke before the house, the chimney-piece in the upper chappell, and the Corinthian heads which stand on the top of the stayrecase, on the North side of the house—all which comes to	130	14	2
Item, for the frett seelinge in the long gallerye Item, for the architrave, freeze, and cornish in the Kynge's bedchamber..	48	10	1

During the last two years, the present Marquis of Salisbury has made many additions at the cost of about 30,000*l.* We avail ourselves of some particulars furnished by a correspondent of the *Morning Herald*, not pledging ourselves to the praise given.

The suite of rooms on the principal story are approached by the east staircase from the cloisters. It forms one of the greatest attractions in the interior of the mansion. The staircase communicates with the great hall on the ground floor. It is ascended by a flight of five landings, and occupies a space of 35 feet by 21 feet in dimension. The balusters are massive, and boldly carved in the Italian form, and above the hand-rail are represented various genii with musical instruments and other emblems. The ceiling exhibits a diversified taste, and the upper division is enriched by a very beautiful pendant in the Florentine style, all of which has been recently coloured and relieved by gold and silver enrichments. On ascending the staircase the first apartment entered is the great chamber, called King James's room. It is a noble apartment, being nearly 60 feet long by 27 feet wide, and is lighted from the east by three immense oriel windows. The noble owner has been lavish in his expenditure in the embellishment of this saloon, and it must certainly rank among the most gorgeous apartments in the kingdom. The ceiling defies description, so elaborate is the decoration, and the spaces alternating with the portraits are filled by panels in colours of the Florentine style, just finished by Mr. Sang and his artists. From that room is entered the gallery which extends the whole length of the southern front to the library. It is above 160 feet long, and 20 feet wide. At each end is an Ionic screen, the entablature and attic of which break the extreme length of the room, which is altogether so highly enriched with architectural ornament as to produce an imposing and unique effect. The ceiling especially displays a great variety of combination and intricacy in its numerous compartments, and is executed with masterly skill. The ground is now entirely gilt, the intersections being ornamented in colours. It is pronounced to be unrivalled in this country, and is only equalled on the continent by the celebrated ceiling in the same style at the royal palace, at Munich.

The great Hall, or as it is called, the Marble Hall, is a conspicuous apartment, from its noble proportions and the general character of its architecture. It is lighted by three bay windows rising the whole height of the hall, besides the oriel at the upper end near which the lord's table stood in the "golden days" of our ancestors. A massive carved screen runs the whole length of the hall at the east end, with an open gallery, highly enriched with carving, amidst which are introduced lions, forming part of the heraldic insignia of the family bearing shields of the cartouche form, on which are blazoned the family arms. The room is panelled with oak, and the walls lined with splendid tapestry lately brought from Spain. The parts under the galleries have been decorated under Mr. Sang's superintendence.

The chapel and a suite of ten rooms have been completed at vast expense by his lordship in the old baronial style, and each room differs, from the panelling being of various woods—some being of oak, walnut, ash, sycamore, &c.

ST. THOMAS'S CHAPEL, AT BRENTWOOD, ESSEX.

The chapel of St. Thomas à Becket, at Brentwood, is in a state of decay and neglect. Some of the mullions of the windows seem crumbling away. It has been completely stripped, and hardly any thing is left but walls, windows, and roof.

It consists of western tower (supporting a small spire of wood or slate), nave, and south chapel (built as a south aisle), under one roof, a well developed chancel, and north porch.

Exterior.—The tower is situated at the west end of the north side of the nave, the west side of the tower standing flush with the west end of the nave and south aisle. Close up under the parapet, on each side, are two ogee-headed lights, quite plain. These are the only windows in the tower, with the exception of two square insertions on the west side. The nave, has on the north, a three-light pointed perpendicular window, with good tracery and drip stone; and a plain dormer window. In the south aisle is a similar pointed window to that on the north. Here is also a plain four-centred doorway. At the west end are two buttresses, one against the tower, and the other at the end of the south aisle; between them is a small pointed window, now bricked up. The north porch is quite plain, and plastered up to the eaves, so that if there is any original work remaining, it is effectually concealed. The gable is of high pitch, and it is entered by a square-headed doorway. The chancel contains, on the north, a plain two-light pointed perpendicular window, with meagre tracery, and the jambs composed of large shallow cavettos; and a two-light square-headed early perpendicular window, with tracery and dripstone, and a plain dormer window. The east window is four-light pointed perpendicular, with tracery. On the south are two two-light pointed windows, the same as that on the north.

Interior.—As I said before, the interior has been completely stripped; hardly any trace of its originally sacred character remains. The floor has been levelled, and the chancel roof has been ceiled and whitewashed. In the south wall at the east end is a double piscina; the pillar or mullion which divided it is gone. One of the principals of the nave roof remains; it consists of horizontal tie-beam, with king post and struts. At the west end is a large gallery.

The only remain connected with the chantry altar in the south aisle, is a single cinquefoiled piscina at the east end. The origin of this is given in the historical particulars. The bell from the tower has been moved into the new church, which was built a few years back. There are no monuments, as burials and baptisms could only be performed in the mother church of South Weald. The chapel is now used as a school.

HISTORICAL NOTICE.

William de Wockendon * gave some lands in the parish of South Weald to the abbey of St. Osith, soon after it was founded; † and they were confirmed to them by Henry II.

In the fifth year of the reign of Henry III. (1221), a chapel was founded, and dedicated to St. Thomas à Becket, by David, abbot of St. Osith (for the convenience of his tenants at Cost Hall, as this manor was then called), with the consent of the Bishop of London, it being in his see; and the abbot and convent of Waltham, who owned the principal manor in South Weald. The chaplain was presented by the abbot of St. Osith.

Of this chapel there are no remains (with the exception of the piscina in the chancel), it

* Probably William de Ockendon, in this county.

† By Richard de Beaumeis, Bishop of London, in 1118, at St. Osith, 11 miles south-east of Colchester.

having been either rebuilt, or entirely new windows and doors were inserted on the occasion about to be mentioned.

A chantry was founded in this chapel for the repose of the soul of Isabel, countess of Bedford, daughter of Edward III. Richard II., in the twelfth year of his reign (1388), granted licence to Edmund, Duke of York, and Sir Robert de Plessington, to give one messuage and 220 acres of land, in this and the adjoining parishes, to a certain chaplain of the chantry, at the altar of St. Mary, in the chapel of Brentwood, to be founded by the said nobles. A chaplain was instituted and admitted in 1393, presented by Edmund, Duke of York, and others.

This chapel remained in the abbey of St. Osith till the dissolution, when it was granted to Cromwell, Earl of Essex. On his attainder, it was granted, with all the messuages, lands, &c., adjoining, to John Cocke, and Anne, his wife. In 1553, it was in the possession of Sir Antony Browne (buried in South Weald Church); but his heirs alienated it to several others, by the name of the manor of Cocksted.

Oct. 26, 1845. AMATEUR.

SPLENDID EXTRAVAGANCE IN NEW-YORK SHOPS.

THE *New-York Herald* seems to have borrowed a leaf out of "Aladdin and his Wonderful Lamp," in the gorgeous account of a "dry goods store" whence the following faint outline is modestly drawn:—The front is of white marble to begin with. The main entrance is between two windows, each consisting of a single plate of glass, 6 feet broad by 11 feet 2 inches high. The other windows consist of four panes of massive plate glass, in frames of iron. The visitor enters a spacious hall, on each side of which are low counters of mahogany and shelves of maple. This entrance hall opens into another circular hall, over which rises a graceful dome, the apex of which is about 90 feet from the ground. Round this circular hall are counters of highly polished mahogany, and shelves and drawers of maple. The wall opposite the visitor on his entrance is to be lined to the height of the ceiling with mirrors. These mirrors will not, probably, be finished before a month. The ceiling is supported by columns, with stuccoed capitals of exquisite design. The main arch, dividing the entrance from the circular hall, before-mentioned, is supported by Italian marble columns, consisting of a single shaft, fluted, and polished to the highest state of finish. The design of the capitals, which are not as yet finished, is of the most chaste and graceful character, consisting of a cornucopia intertwined with the caduceus of Mercury, the god of commerce. This beautiful device is apparent in all the ornamental painting and other embellishments of the building. The walls and ceiling are painted in fresco, and the tinting and design are exquisitely chaste, classic, and tasteful. There is one large chandelier in the main hall that is not surpassed in beauty by anything we have ever seen. All the chandeliers, which are from the factory of Cornelius and Son, Philadelphia, are of exquisite finish and design. The gas fixtures are of a new and beautiful pattern, and are by the same makers. The building contains five stories, including the basement. The goods laid out for the inspection of the public on the opening, were all new, and their value amounted to 600,000 dollars. To attend to this immense business, there are upwards of 100 clerks. We have thus attempted to give our readers some faint idea of the magnificence of this immense establishment. The grandeur and style of its internal arrangements are not equalled by those of any similar establishment in the world. Its decorations in general and in detail, are of the most chaste and classic description. There is no gaudy gilding or tinsel show to disgust refined taste, but every thing is ornate and elegant. "*Simplex munditiis*" might be adopted as the motto of the establishment. This simplicity is the more gratifying to those of pure taste, as the decorations, both external and internal, give indication of the most costly expenditure. The latest improvements in every department of science, called into play in the construction of the building, have been adopted, in the minutest details. Even the shelves are made to turn down on hinges, after the new Parisian plan, so as to protect the goods from dust. The building is to be warmed in winter by furnaces beneath the basement, from which pipes ascend to every portion of the house. New York can now boast of the most splendid dry goods store in the world.

FOREIGN ARCHITECTURAL AND COLLATERAL WORKS LATELY PUBLISHED.

GERMAN WORKS.

Vogell, Count, Architect. Kunstwerke.—Ancient Art-works from Lower Saxony. Hanover. Fol. 6 pl. coloured. Part I. 3s.

Voit, Prof. Aug., Kunstdenkmale.—Monuments of Art for the Survey of their Development from first art trials up to the present time. Stuttgard. Obl. 4to. Part I. tables, 7s. 6d.

Wölfer, M., Anweisung.—Practical Instruction to Build Dwellings and Manufactories perfectly Fireproof. Quedlinburg. 8vo. 8 plates, 3s. 6d.

——, Handbuch.—Practical Handbook of Road, River, and Dike Building, according to J. S. *Lehmann's* principles. Ibid. 8vo. plates, 6s. 6d.

Zahn, W., Ornaments.—The Choicest Ornaments and Mural Paintings of Pompeii, Herculaneum, and Stabiæ. Berlin. Imp. fol. lithographic plates, each part 1*l.* 7s. 6d.

Zeitschrift.—Journal for Practical Architecture. Edited by J. A. *Romberg*. Leipzig. Gr. 4to. with engravings in royal fol. Each vol. 1*l.* 7s. 6d.

——. — technical for Blacksmiths, Brassfounders, &c. Edited by T. *Retz*. Berlin. 4to. plates, each vol. 1*l.* 5s.

——. — for Engine Manufacturers, Millwrights, and Fire-engine Makers, &c. Edited by Dr. *Hartmann*. Weimar. 4to. plates in fol. each part 2s. 6d.

——. — archæological. Edited by E. *Gerhard*, Co-director of Archæological Institute of Rome. Berlin. Gr. 4to. plates, 14s.

——. — for Railway Affairs, Steam-navigation, and Steam-engines. Edited by Dr. *Hartmann*. Berlin. 4to. plates, fol. each part 4s.

Zeller, Architect, Gebäude.—The Private Structures of Stuttgard, erected from 1806 to 1844—selection. Stuttgard. Royal fol. plates, each part 8s.

Altarbilder.—The Altar Paintings of Barthol. Zeytblom. Published by the Art Institution of Ulm. Ibid. Royal fol. plates, 9s.

Zumpt, C. G., Prof., Einrichtung.—The Structural Arrangements of the Roman Dwelling. Berlin. 8vo. plate, 2s.

Fulger, A., Abbildung.—Views of the Principal Buildings of Old German Architecture. Munich. 8vo. 50 lith. plates, 9s.

Ackermann, Dr., Portrait-mahler.—Sir Godfrey Kneler, the Painter, considered in relation to the Art of his Times. Lubeck. 4to. 1s. 6d.

Beiträge.—Materials for Northern Antiquarianism, containing the Sepulchral and Sacrificial Monuments of Waldhausen. Lübeck. Gr. 4to. plates in fol. 5s.

Schultz, civil engineer, Bauzeitung.—Popular Architectural Gazette. Weimar. Gr. 4to. plates.

Beschreibung.—Description of Patents and Improvements in the Austrian States, now expired. From 1841 to 1843. Vienna. Gr. 4to. with pl. in fol. Complete, 28s.

——. Description of the Town-halls of Zitta. Ibid. 8vo. 2s.

Bruckmann, Capt., Luftheizung.—The Heating by Air, and its Novel Apparatus in the Gymnasium at Heilbronn. Ibid. Gr. 4to. plates, 3s.

Bühler, Super. Build. Councillor,—der laufende Schwamm.—The Running Fungus of Buildings, its Origin, Cure, &c. Stuttgard. Gr. 8vo. 4s.

Capitäler.—The Byzantine Capitals from several Churches of Germany, France, and England. Munich. Gr. fol. each part 4s.

Daffner, Baubüchlein.—The Little Book of Building, an Advice to Masons, Carpenters, Farmers, and every one else—to construct solid, cheap, and healthy Habitations. Schaffhausen. 8vo. plates in fol. 2s.

TENDERS FOR SEWERS.—On Friday last, November 6th, 1846, the following tenders were delivered at the Sewers' Office for Westminster division, for sewers to be built in and about:—

	Grosvenor-square.	Little George-st., Westminster.
Crowshaw (late foreman to Bennett's..	£5,650	..
J. Hill.....	4,800	.. 140
Cotsworth.....	4,650	.. 144
Dethick.....	4,400	.. 130
Hill and Son.....	4,316	
Yeomans	4,244	.. 122
Curtiss	3,944	
Jay	3,870	
Starkey.....	3,705	.. 120
Humphries		.. 140

The lowest tender accepted for both. The difference between highest and lowest is frightful.

COMPETITION AT LIVERPOOL.—The directors of the Royal Fire and Life Office at Liverpool, have selected the design of Mr. Grellier, the subject of a competition, and appointed him to carry it out forthwith. Report speaks well of the design.

Correspondence.

ROMAN CEMENT.

SIR,—Working mouldings in Roman cement is greatly prolonged in cold weather, by the cement not setting so quickly as required. Probably some of your correspondents can say, if any liquid can be used to make the cement set quickly, without injuring the quality of the cement.

Chichester, Nov. 2nd, 1846. F. H.

Miscellanea.

CHURCH BELLS.—A correspondent of the *British Magazine* thus describes an invention lately made by Mr. John Bottom, St. Philip's-road, Sheffield. It is a circular plate or disc of steel, as a substitute for the ordinary church bell, which has hitherto been so cumbersome and expensive an article. Through numerous difficulties, and discouragements, and disappointments, this enterprising man has persevered, and at last perfectly succeeded. These steel plates have a much louder tone, and are heard much farther off than the common church bells of the same weight or the same price. Thus, that which I have, weighing about 50 lbs., is heard much farther off than an ordinary bell of much greater weight; its cost was 4*l.* 10s., and no bell which could be got for 10*l.* would have nearly so good a tone. These plates could be rung with bells also, thus affording an easy way of considerably increasing the number and efficiency of our present peals of bells.

GLASGOW CATHEDRAL.—The renovation of this cathedral, according to the *Glasgow Constitutional*, "is now going steadily forward, and a good idea may now be formed of what it will be when the work is completed. For our own part," it is added, "we think that for true elegance and beauty, there will be few to compare with it in this country. The Lady Chapel is also being renovated; and the roof, pillars, and flooring cleaned and repaired. The great modern western window is to be removed, and replaced by one in the style of the building. The glazing is also progressing briskly. The door of an entrance at present in use, will be turned into a window, as of old, when the noble west entrance-door is opened. The town council have agreed to memorialize the Woods and Forests to remove the old tower; but this would render the erection of a belfry necessary."

HEALTH OF TOWNS' ASSOCIATION.—This association has just now published an elaborate report, drawn up by Dr. Southwood Smith, on Lord Lincoln's Sewerage Bill, which deserves the most serious consideration. The doctor justly remarks, in a letter to us:—"There is not a single individual in the community whose interest is not deeply involved in the matters here discussed; while, to say nothing of their moral well being, the health and even the life of hundreds of thousands of the people depend on the view which is taken of the sanatory question by the public and the legislature. It is therefore of the last importance to give a right direction to opinion on this subject; but unfortunately the number of those who at present understand it, is small indeed." We shall return to this report in an early number.

PUBLIC SAFETY.—For the last three days, workmen have been employed in demolishing the upper part of a new house, at the corner of Hart-street and New Oxford-street, the necessity for which we have foreseen for some time past. Is it impertinent for us to inquire how it happens, that spite of the Act, which will not suffer you to touch a brick wall without an overlooker, spite of the official referees, the registrar, the district surveyor, and the self-interest of the builder himself, a costly structure may be erected which will not stand 'till it is finished?

ENLARGEMENT OF THE POLYTECHNIC INSTITUTION.—Considerable enlargements are about to be made in this popular institution, including the construction of a commodious theatre. The admirable manner in which this institution is conducted, entitles the directors to our warmest praise.

DRAINAGE.—An important sewer is now being constructed at Camberwell, nearly three-quarters of a mile in length, under the direction of Mr. Newman, the surveyor of sewers for that district.

Laths.—An improvement in the lath-cutting machine has been patented in America by Solomon F. Finch and James Wheeler, who found their claim on the division of "the carriage which carries the bolt or block to the knife into two parts, moving on each other, and connected together by a spring, or analogous device, so that the bolt is griped whilst being carried against the edge of the knife, and still griped until drawn back off the edge of the knife, and then liberated."

Leslie's new Gas Burner.—We mentioned Mr. Leslie's invention some time ago, as promising to be of great advantage to all gas consumers. The works for the manufacture of it are now in operation, and the result fully bears out our anticipations. The gas issues from a number of capillary tubes, placed concentrically, by which means very perfect combustion is ensured.

New Bankruptcy Courts.—Application has been made to the city, on the part of the Lord Chancellor, for the purchase of the ground lately occupied by the Fleet Prison, for the purpose of erecting upon it the proposed new Courts of Bankruptcy.

Ventilation of Court of Common Pleas.—Formal complaint has been made against the ventilation of this court (by Dr. Reid), in the hope of obtaining some improvement in it.

Fonthill.—We hear that it is intended to erect a splendid mansion on the site of the existing remains of Fonthill Abbey, which are now in course of removal.

NOTICES OF CONTRACTS, &c.

The authorities of the Stamp Office having given us notice to discontinue the insertion of our list of contracts, &c., excepting as advertisements, we, in deference to their wishes, omit them for the present, but have taken steps to place the facts of the case properly before them, and, as we hope, remove their objections. In the meantime a list may be seen at our office.

TO CORRESPONDENTS.

"*Westminster Abbey.*"—A correspondent (Mr. Parry), suggests that piers of the present size might be rendered equal to the support of the required spire, by the use of cast-iron cased with marble or stone.

"*Dr. L.*"—The pamphlet reached, but by a rare chance has been mislaid.

"*Amicus.*"—The unfitness of the marble arch for our climate has been already stated. As, however, we have it, it should not be thrown on one side.

"*A. B. C.*"—Our arrangements are made for the meetings in question.

"*H. E.*" (Gray's-Inn).—We are not authorised to give the name required.

"*W.*"—The expression "Reinstate Dilapidations," is a common one, and though not strictly correct, is defensible.

"*R. B. W.*"—Thanks. The subject will not justify engraving. The drawing shall be left at the office.

"*Inquiries.*"—The Eidograph is generally preferred to the Pentograph. Elliott, of Holborn, makes them. Smith, of Pimlico, near Eccleston-bridge, has machinery which will make by steam a set of wheels (four) in from forty to sixty minutes.

"*Gas on Comte de Val Marino's principle.*"—We can refer our correspondent to a gentleman who will give him information.

"*Country Reader.*"—From 15 to 20 per cent. *used* to be thought fair. The majority are now satisfied with 12.

"*W. P.*"—A contradiction has appeared.

"*G. T. J.*"—The drawing shall be engraved.

"*J. E.*" (*November.*)—Our attention was directed to the quotations by a correspondent. It is contrary to our practice to give up names.

"*Modelling.*"—A Correspondent asks for a recipe for preparing a composition for modelling, which has not wax for its basis, or for tempering ordinary modelling clay, so as to adapt it for working very small figures in.

"*Fresco Painting.*"—We are compelled by press of matter to postpone Mr. Buss's second lecture till next week.

Received.—"L.," "J. I. M.," "Civis," "Young Architect" (we don't quite understand:) "W. J." (Westbourne-terrace), "Steinitz," "Turning and Mechanical Manipulation," by Chas. Holtzapffel, Vol. II. Cutting Tools and Machines; (The Author, Charing Cross.) "City, Town, and Country Architecture," by S. H. Brooks, architect; (Williams, 193, Strand).

"*Books and Addresses.*"—We have not time to point out books or find addresses.

*** Correspondents are requested to address all Communications to the Editor, 2, York-street, Covent-garden.

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THE ELECTRIC TELEGRAPH.—The principle of this valuable invention is clearly demonstrated by Professor Bachhoffner in his Morning and Evening Lectures at the ROYAL POLYTECHNIC INSTITUTION. Dr. Ryan's Chemical Lectures daily; and on the Evenings of Mondays, Wednesdays, and Fridays. The principles and uses of the Working Models, and other specimens of the Useful Arts, are explained to the Visitors. The Opaque Microscope. The Oxy-Hydrogen Microscope, by Cary, reproduced with the most interesting Objects. The latest Dissolving Views, by Charles Smith, are of great beauty.—Admission, 1s.; Schools, Half-price.

FIRE BRICKS, Stourbridge, Welsh, and Newcastle; also Lumps, Tiles, and Clays, a large Stock of the best made Goods are selling at very reduced prices (a great reduction having taken place in freights) at WARD'S Honduras Wharf, Bankside. Windsor Nonsuch, and Town-made Oven Tiles, PF.N. and Circular Bed Fire Bricks, Country Pan, Plain and Ridge Tiles, Paving Bricks, Corn Drying and Patent Malting Tiles.—Country Builders promptly supplied. Rough River Ballast for Concrete and Thames Sand, above and below bridge, by freights or loads. Prepared Sand for Plastering.

G. ELL'S ADJUSTABLE SCAFFOLD, OBSERVATORY, or FIRE ESCAPE.—This Machine consists of a series of hollow rectangular frames, sliding one within another, after the manner of the tubes of a tellescope, is applicable to a variety of purposes, but is especially adapted to that of Land Surveying, ornamenting the walls and ceilings of lofty buildings, hanging chandeliers, fire escape, or for elevating persons for any purpose whatever, as it may be adjusted to any height within its range, and supports itself with safety, independently of any attachment to the walls.—To be seen at G. ELL'S, Adjustable Scaffold, Ladder, and Barrow Manufactory, New Road, St. Pancras.

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STEPHENS'S PROCESS for DYEING or STAINING WOOD, as a substitute for Paint. The natural grain of wood is imitated by art, but the most successful imitation has a sameness of appearance when compared with the continual variety which different woods present in their natural grain. To give an ornamental colour to the wood without obscuring the grain, is the object of this process, which surpasses paint in appearance, while at the same time it is so economical that the whole interior of a house, which would take a month or six weeks to paint in the usual manner, may be finished in one week by the process above named, and be more pleasing when finished. The dyes or stains are prepared and sold by HENRY STEPHENS, 54, Stamford-street, Blackfriars-road; sold also at the Office of "The Builder," 2, York-street, Covent Garden, London; Hodkinson, Widemarsh-street, Hereford; R. Sutton, "Review Office," Nottingham; H. Wills, 39, High-street, Lynn; and in Manchester, at Crake's Marble Works, Garratt-bridge. In bottles of 6d. and 1s. each, and at 10s. per gallon. The oak colour may be obtained in powder at 8s. per pound, which dissolves in water to form the liquid, and one pound will make one gallon of stain.—N.B. The Trade supplied.

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THE Patentee can confidently recommend these Shutters for both security and durability. The edges being sheathed with IRON, and the cost little more than common shutters, their construction so simple, that the largest establishment can be opened or closed in a few moments with the greatest possible ease without the use of machinery. Their superiority over other Revolving Shutters consists in being made without metal hinges, consequently cannot rust, buckle, or get out of order, and are equally safe. W. SNOXELL will have much pleasure in giving reference to numerous establishments where they are fixed, having on all occasions given the greatest satisfaction.

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BUNNETT and CORPE'S Patent REVOLVING IRON SHUTTERS.—Since the verdict found in favour of the Patentees, in the Court of Exchequer, in the action tried by order of the Court of Chancery, that Court has granted a perpetual Injunction for restraining all infringements of this Patent, and therefore all parties are hereby cautioned against infringing the same.

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Some thousands of Bunnett and Corpe's Shutters have now been put up, without a single complaint of their want of strength or security; and nine years' practical experience (during which they have adopted every real improvement) enables the Patentees to challenge comparison with any others. They will guarantee all Shutters put up by them to keep in order, and last twice as long as any with thin convex laths.

B. and C. also manufacture REVOLVING WOOD SHUTTERS (the Patent for which has expired), at the same prices as other makers, but greatly superior, being fitted with their patent raising gear, and proper metallic hinges, without which no shutter can be safe or durable.

BUNNETT and CORPE are likewise Patentees and Manufacturers of METALLIC SASH-BARS, MOULDINGS, &c., IN BRASS, COPPER, OR ZINC, FOR SHOP FRONTS, WINDOWS, SKYLIGHTS, AND VARIOUS OTHER PURPOSES.

Shop-fronts fitted with Iron Shutters, Patent Brass or Zinc Sashes, Plain or ornamental, handsomely Engraved, Moulded, Stall-board Plates, best Plate Glass, and Internal Brass Fittings of all kinds, superior in quality and workmanship, and lower in price than any other house.

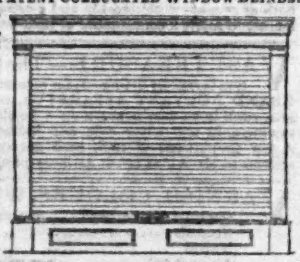
Contracts taken in Town or Country.

Metal Drawing and Stamping for the Trade.

Office at No. 26, Lombard-street, London; Works, at Deptford, Kent.

Steam-engines, Sawing, Planing, and Moulding, Cutting-machines on Improved Plans, especially adapted for Builders' purposes, may be seen in operation at the Works.

IMPROVED PATENT CONVEX IRON REVOLVING SAFETY SHUTTERS.—Patent Panelled Iron Safety Shutters. PATENT OUTSIDE SHUTTER BLINDS.—PATENT CORRUGATED WINDOW BLINDS.



The attention of Architects, Builders, and Blind Makers is requested to the IMPORTANT PATENTED IMPROVEMENTS in the above enumerated Articles, and inspection invited, at the Manufactory of the Patentees, R. HOWARD & Co. 115, Old Street, London.

The great importance of strength and stiffness in the Laths of REVOLVING IRON SHUTTERS, when required for security, is so obvious, that it is only necessary to point out the fact, that the Patent Convex Laths are twelve times stronger than the ordinary flat Laths (as shewn by the engravings and description), to insure their general adoption.

The Patentees invite attention to their greatly improved Gearing for Raising and Lowering their patent Shutters, which, possessing all the advantages of the endless screw (worm and wheel), cannot, even by wear, be liable to run down, and entirely avoids the necessity of using the ratchet wheel; it is at once simple and THOROUGHLY EFFECTIVE, and is SAFER and MORE DURABLE than any plan yet adopted for that purpose, thus rendering their patent Revolving Shutters the SAFEST and MOST EFFICIENT in use. These Shutters are fixed horizontally (either above or below the window or door), or vertically, for which position the great additional strength of the Convex Laths renders them peculiarly suitable.

REVOLVING IRON SHUTTERS, MADE OF THE COMMON FLAT LATHS, at a considerable reduction of price.

CAUTION.—The Patentees beg to caution all persons against Making or Using RENT or CONVEX LATHS for REVOLVING IRON SAFETY SHUTTERS (whether winding horizontally or vertically), so as to obtain increased strength and stiffness, as they thereby render themselves liable to legal proceedings for infringing this patent.

Engravings and Prospectuses will be forwarded on application.

DRAWN METALLIC SASH BARS, ASTRIGALS, MOULDINGS, STALL BOARD PLATES, &c.

Patentees and Manufacturers, R. HOWARD and Co., London.

LIGHTNING CONDUCTORS FOR BUILDINGS.

A. SMITH'S PATENT COPPER WIRE ROPE is being daily employed for the protection of CHURCHES and other buildings from the effects of thunder storms; it possesses important advantages over other forms of conductors. References can be given where it has been applied for some time past to CHURCHES, PUBLIC and PRIVATE BUILDINGS, &c., &c. Its general adoption in the Naval and Mercantile Marine of this and other countries is the strongest possible EVIDENCE of its EFFICIENCY, &c.

A. SMITH begs the attention of those engaged in building to his IMPROVED PATENT PANELLED AND REVOLVING IRON SHUTTERS,—Also, the Patent Weather-tight Fastening and Cill Bar, for French Casements, which are so much admired for their security, simplicity, cheapness, and efficiency. Of the merits of his

Patent Double and Single Action Door Springs,
Improved Flooring Cramps,
Patent Wire Sash Lines, &c. &c.,

Little need be said, as they are pretty generally known and appreciated.

Manufactory for Iron Suspension, Sliding, and other Doors, Strong Rooms, Plain and Ornamental Palisading, Gates, and Columns.—Also, Metal Sashes, Shop-fronts, Stall-board Plates, Brass butt, and other Hinges. Buildings heated upon a new, safe, and superior plan.

Estimates given for every description of Metal-work.

A. SMITH, 69, Princes-street, Leicester-square, London.

GAS LIGHTING.—Churches, Factories, Railway-stations, Offices, &c. &c., fitted up for Gas with the very best materials and workmanship. Every description of Gas-lamp Furniture Manufactured on the Premises. Estimates given, and Suitable Patterns, or Drawings submitted.

JOHNSTON, Brothers, Gas Apparatus Manufacturers and Gas Fitters, 9, Cursitor-street, London.

TO ARCHITECTS, BUILDERS, &c.

GAS LAMPS, GAS BRACKETS, GAS PILLARS, BURNERS, &c. &c. In calling the attention of architects, builders, &c., to their assortment of Gas Furniture in general, C. DEBAUFER and SON respectfully announce they continue to fit up premises of every description on the most approved and newest system of gas fitting. An experience of forty years justifies us in making the above assertion.—P.S. Country orders attended to with dispatch.—10 and 11, Creed-lane, St. Paul's.

GAS.—From 40 to 60 PER CENT. SAVED.

CONTRACTS taken for Lighting Towns, Villages, Mansions, Mills, Factories, Railway Stations, Signal Lights, Dockyards, Lighthouses, Churches, Colleges, Hospitals, Theatres, Public Institutions, Prisons, Barracks, Asylums, Schools, Unions Poor-houses, Public Gardens, &c., with pure and brilliant GAS by FRANCIS' PATENT GAS LIGHT APPARATUS, either by rental or purchase.—Applications at the office and factory, 112, High Holborn, and Eagle-street, Red Lion Square, London, where the gas can be seen manufactured on the principle of this invention, from Ten till Four daily. Prospectuses and every information may be obtained.

TODD'S PATENT PROTOXIDE PAINT, manufactured by CHAS. FRANCIS and SONS, CEMENT WORKS, NINE ELMS, LONDON.

The properties of this Paint are peculiar for preventing iron from oxidation, wood from decay, and masonry from damp; it neither cracks nor blisters with the hottest sun, and is therefore most valuable for Railways, Boilers, Steam, Gas, and Water-pipes; Hothouses, Forcing-houses, and for Shipping. Its adhesion is so great to iron and wood, that the hardest friction will scarcely remove it. It prevents vegetation on stuccoed buildings, and is not affected by spray of sea-water.

PROTOXIDE PAINT is sold ground in oil, and, compared with white-lead, its property of concealing is as 75 to 50, so that one hundred weight is equal to one and a half of lead. It works well under the brush, and forms with oil an unctuous and cohesive mixture. If blended with other paints it has a softer tone than white-lead. For houses painted during occupation it is most preferable, being perfectly innoxious.

CHEAP PAN FOR WATER CLOSETS, With Trap, in one Piece.

DOULTON and WATTS, Lambeth Pottery, High-street, Lambeth, London, Manufacturers of the above in superior glazed STONE WARE, price 7s. 6d. each. They are of the most durable ware, and are recommended in preference to iron on account of their cleanliness and cheapness. If preferred, they can be had in two parts, the pan at 4s. 6d., and the Trap at 3s. N.B. Manufacturers of RAIN-WATER PIPING for houses.

By Her Majesty's Royal Letters Patent

WILKINS'S "SILENT" WATER-CLOSET.—To Architects, Surveyors, and Builders.

Gentlemen,—Your attention is respectfully invited to the above "Closet," the peculiar qualities of which are, that it is perfectly silent in the action of the Machinery and the supply of Water, and may be fixed in any convenient place in the House, without communicating the sound of a Water-closet to any of the adjoining Apartments, while it retains all that is useful in the ordinary Closets, it does away with the Ball Levers, Wire, Cranks, &c., which cause much of the noise to which the old closets are liable. The want of a Water-closet more suitable for the present mode of fixing them in the internal parts of Dwelling Houses and Office Apartments, has long been felt, and the benefit to be derived from one that is "Silent" in the action of the Machinery and supply of water, is sufficiently obvious to render unnecessary any lengthened comment in its favour.

This Closet is simple in its construction, the whole of the apparatus (including the trap), being completed between the floor of the room and the seat of the Closet, thereby rendering it quite easy to remove any noisy Closet and fix the "Silent" one in its place, without interfering with the old trap, which is generally embedded between the floor and ceiling below the Closet. The "Silent" Closet is also clean and so free from any effluvia, as to allow of its being fixed in any bed-room (where there is a convenience of fixing a pipe down the outer wall of the house) without occasioning the least unpleasantness whatever.

May be viewed Daily, and Orders taken at No. 26, Gower-place, University College, London, from 8 in the Morning to 9 in the Evening.

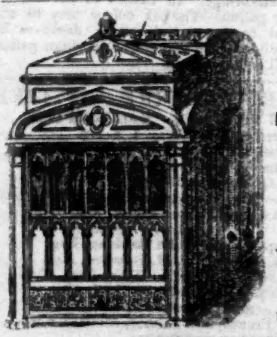
FEATHER BEDS PURIFIED BY STEAM

HEAL AND SON have just completed the erection of Machinery for the purifying of feathers on a new principle, by which the offensive properties of the quill are evaporated and carried off in steam: thereby not only are the impurities of the feather itself entirely removed, but they are rendered quite free from the unpleasant smell of the stove, which all new feathers are subject to that are dressed in the ordinary way.

Old Beds re-dressed by this process are perfectly freed from all impurities, and by expanding the feathers the bulk is greatly increased, and consequently the Bed is rendered much softer. The following are the Prices of New Feathers:—

Mixed, per lb.	1s. 0d.	Best Foreign Grey Goose	2s. 0d.
Grey Goose	1s. 4d.	Best Irish White Goose	2s. 6d.
Foreign Grey Goose	1s. 8d.	Best Dantzic White Goose	3s. 0d.

HEAL and SON'S LIST OF BEDDING, containing full particulars of Weights, Sizes, and Prices, sent free by post, on application to their Establishment, 196, opposite the Chapel, Tottenham-court-road.



NOTT'S PATENT STOVE,

FOR

CHURCHES, HALLS, WAREHOUSES, &c.

THE PATENT having expired, the present Proprietors are enabled to offer these excellent Stoves at

THREE-FOURTHS OF THE PRICES HITHERTO CHARGED.

Engravings of the Patterns, with

THE REDUCED PRICES,

will be forwarded on application to the Warehouse,

80, GREAT QUEEN STREET, LINCOLN'S INN FIELDS.

N.B. Hot-water Pipes can be attached to the Stoves for warming distant apartments, Conservatories, &c.

CHEAP AND DURABLE ROOFING.

By Her Majesty's Royal Letters Patent.

F. McNEILL and Co. of Lamb's Buildings, Bunhill Row, London, Manufacturers and ONLY Patentees of

THE PATENT ASPHALTED FELT, FOR ROOFING HOUSES, VERANDAHS, SHEDS, &c.

Patronized by

HER MAJESTY'S WOODS AND FORESTS,
HER MAJESTY'S COMMISSION OF CUSTOMS,
HONOURABLE EAST INDIA COMPANY,
HONOURABLE BOARD OF ORDNANCE,
HER MAJESTY'S ESTATE, ISLE OF WIGHT,
ROYAL BOTANICAL GARDENS, REGENT'S PARK.

And by the most eminent members of the Royal Agricultural Societies of England, Scotland, and Ireland; at whose great national shows it has been exhibited, and OBTAINED THE PRIZE, for being the best and cheapest article for roofing also used for under slates at the Royal Agricultural Society's House, in Hanover-square.

Its advantages are lightness, warmth, durability, and economy. It is impervious to rain, snow, and frost, and a non-conductor of heat and sound. The Felt can be cut to any length, by 32 inches wide. The price is only ONE PENNY PER SQUARE FOOT. Samples, with full directions as to its uses and the manner of applying it, with TESTIMONIALS, some of them of seven years' experience, from Architects, Builders, Noblemen, and Gentlemen, who have extensively used it, sent free to any part of the town or country. A Dry-hair Felt, for covering Boilers, &c., is also manufactured, by which a saving of about 25 per cent. in fuel is effected. The TRADE are respectfully enjoined to send their orders DIRECT to the FACTORY, as the surest means of being supplied with the genuine article, and in lengths best suited to their roofs. They are likewise CAUTIONED AGAINST MISREPRESENTATION, as THE ONLY WORKS in Great Britain where the above roofing is made are F. McNEILL and Co.'s Manufactories, LAMB'S-BUILDINGS, BUNHILL-ROW, LONDON.

Roofs covered with the felt to be seen at the Factory, also the new Vice-Chancellor's Courts, the passages and offices leading to Westminster Hall, and other buildings at the new Houses of Parliament.

A Liberal Discount allowed to the Trade.